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COUNTY BOROUGH OF SOUTH SHIELDS.

ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH,

1920.

W. CAMPBELL LYONS,
M.B., CH.B., D.P.H.

MEDICAL SUPERINTENDENT OF THE BOROUGH ISOLATION HOSPITAL.
PRINCIPAL SCHOOL MEDICAL OFFICER.
CHIEF TUBERCULOSIS OFFICER.
BACTERIOLOGIST TO THE BOROUGH.
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MEDICAL OFFICER OF HEALTH.

CHAIRMEN OF COMMITTEES.

Health Committee—Alderman W. L. Robertson.

Hospital Sub-Committee—Alderman W. L. Robertson.

Tuberculosis (Consultative) Sub-Committee—Councillor Druery.

Maternity and Child Welfare Committee—Councillor Druery.

Venereal Diseases Sub-Committee—Councillor Sutcliffe, L.D.S.

Slaughterhouses Sub-Committee—Alderman Richardson.

Education Committee—Alderman Hilton.

Medical Inspection of School Children Sub-Committee—Councillor Lawson.

STAFF OF PUBLIC HEALTH DEPARTMENT.

Medical Officer of Health, Chief Tuberculosis Officer and Principal School Medical Officer, etc.

W. Campbell Lyons, M.B., CH.B. (Edin.), D.P.H.

Assistant Medical Officer of Health and Tuberculosis Officer.

Douglas Martin, M.B., CH.B. (Edin)., D.T.M., D.P.H.

Assistant Medical Officer of Health and School Medical Officer.

A. H. Wear. M.B., B.S., D.P.H., B.HY.

Clinical Medical Officer (Venereal Diseases).

W. J. F. Mayne, M.B., CH.B. (Edin.), D.P.H., (Resigned Sept., 1920).

C. G. Timms, L.R.C.P. & S. (Edin.), (Commenced Dec., 1920).

Assistant Medical Officer (Maternity and Child Welfare and School Medical Inspection).

Dorothy O. S. Blair, M.B., B.S.

Operating Surgeon, School Surgical Clinic.

Robert Crosby, M.B., B.S., M.R.C.S.

School Dental Officer—P. W. Diack, L.D.S.

Borough Analyst—J. T. Dunn, D.SC., F.I.C.

Superintendent of Public Abattoir, and Inspector under the Food and Drugs Acts.

M. J. Pollock.

District Sanitary and Housing Inspectors.

W. Clark, R. W. Weir, R. Ayre. W. Hill.

Inspector under the Shops Acts—W. Smith.

Health Visitors.

Miss J. Errington (*Inspector of Midwives*), Miss P. M. Winter, Miss L. Allison, Mrs. J. Leete, Miss F. Sweeney (Resigned, August, 1920), Miss L. O. Lowery, Mrs. D. Barrett, Miss C. Hopper, Mrs. M. Jennings, Miss K. Nixon, Mrs. M. W. Arthur, Miss A. Smyth, and Miss L. Donald.

Chief Clerk—J. Yeoman.

Clerks—C. Hymers, J. Hilton, G. A. Campbell, F. H. Day, Miss M. Shorey, Miss G. C. Cooper and Miss N. Young.

Laborant—H. Eardley.

Matron, Deans Isolation Hospital—Mrs. S. C. Cowan.

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SUMMARY OF VITAL STATISTICS, ETC.

Population at 1911 Census		108,647
Population estimated to middle of 1920		115,945
Area of Borough		2,405 acres.
Density of Population per acre		48
Births during 1920		3,966
Deaths during 1920		2,000
Birth-rate 1920		34.2
Death-rate 1920		17.2
Infant Mortality Rate, 1920		121
Tuberculosis death-rate :	Pulmonary	1.35
	Non-pulmonary	0.41
	Total	1.76
Number of Insured Persons, 31st December, 1920		47,659

To the Chairman and Members of the Health Committee.

Mr. Chairman and Gentlemen,

I have the honour to present the 46th Annual Health Report. The report is somewhat modified in its form, at the request of the Ministry of Health.

The death-rate for the year shows a slight increase on that of 1919, while the birth-rate is greatly increased, being 34.2 per 1,000 of the population, the highest rate recorded in the Borough since 1904, and the second highest birth-rate among the County Boroughs of England and Wales.

I regret to have to record a slight increase in the Infant Mortality. The deaths among infants under a year old numbered 121 for every 1,000 births. I hope, however, that as the Council's scheme for Maternity and Child Welfare matures this much too high mortality will be reduced.

The death-rate from all forms of Tuberculosis was 1.76 per 1,000 of the population, and although this rate is considerably above the average of the other County Boroughs it is the lowest death-rate from this disease ever recorded in the Borough. Material advance has been made in the scheme for providing residential treatment for cases of tuberculosis, and were it not for the abnormal financial conditions, certain buildings would probably by now be in the course of construction.

The zymotic death-rate for 1920 was 0.90 per 1,000 of the population, the lowest recorded in the Borough with the exception of that for the year 1916. The death-rate from zymotic diseases is decreasing for the country as a whole.

The death-rate from pneumonia was high, being 1.98 per 1,000 of the population; with the exception of two years it is the highest yet recorded for the Borough.

I have not reported at any great length on the housing conditions in the Borough because it will be more opportune to review the situation in the light of the forthcoming census, and because the conditions have not materially altered since last year.

I have to record with pleasure my thanks to every member of my staff for their loyalty and help willingly given.

I am, Gentlemen,

Yours faithfully,

W. CAMPBELL LYONS.

NATURAL AND SOCIAL CONDITIONS.

POPULATION.—The population at the 1911 Census numbered 108,647. The Registrar-General's estimate for the year 1920 for the purpose of calculating the birth-rate and death-rates was 115,945. This estimate is based on the returns furnished under the scheme of rationing of food.

In my opinion the Registrar-General's estimate is too low. My reasons for this opinion are that the natural increase of the population (that is, the excess of births over deaths) from April, 1911, to June, 1920, is approximately 12,000. Allowing for war casualties, which I am informed numbered about 2,000, the population at June, 1920, would be between 118,000 and 119,000. This is without making any allowance for emigration or immigration, but I think that the latter is in excess of the former on account of the greatly increased industrial activity in the Borough in recent years.

The birth-rate and death-rates for the year 1920 have been calculated on the Registrar-General's estimate of the population.

PHYSICAL FEATURES AND GENERAL CHARACTER OF THE DISTRICT.—The Borough has a peculiar geographical position, being situated on a promontory which is bounded on the North East and East by the North Sea, and on the West and North West by the River Tyne.

The area of the Borough is 2,405 acres, that is, land together with inland water, but excluding foreshore and tidal waters.

The density of the population calculated on the Registrar-General's estimate is 48 persons per acre, the third most densely populated Borough among the County Boroughs of England and Wales, a fact which must not be lost sight of in considering mortality rates.

OCCUPATION OF INHABITANTS.—The population of the Borough is mainly industrial. At the time of the last census 60 per cent. of the adult male inhabitants were engaged in shipbuilding and engineering, coal mining, and occupations connected with shipping.

The 1911 census showed that there was a comparatively small proportion of the female population in industrial employment. Out of 36,974 females in the Borough only 8,075 were engaged in occupations other than home duties. 80 per cent. of these were employed as shop assistants and domestic servants.

VITAL STATISTICS.

(A.) BIRTHS.

Birth-rate.

The Registrar-General has notified me that during the calendar year 1920, 3,922 births were registered in South Shields, to which he adds 48 inward transfers, that is, births in Harton Institution and elsewhere of children whose mothers were residents of the Borough. On the other hand there has been deducted 4 births which occurred in the town among non-residents. The total number of births was thus 3,966, corresponding to an annual *birth-rate of* 34.2 per 1,000 of the population. The *number* of births for 1920 is the highest recorded in any year; the *birth-rate* is the highest recorded in the Borough since 1904, and is the second highest among the County Boroughs of England and Wales.

The birth-rates for each quarter of 1919 and 1920 were as follows :—

	1919.	1920.
1st quarter	21.6	40.0
2nd ,, ...	22.4	33.9
3rd ,, ...	26.5	32.4
4th ,, ...	33.6	28.2

The annual rates since 1871 are shown in the table on page 115.

The number of births reported to the Health Department during the year was 3,908, made up as follows :—

(*a*) notified under the Notification of Births Acts, 1907 and 1915 (excluding 123 still-births, but including 33 known transfers from Harton Institution) 2,874

(*b*) registered and not previously notified (from returns made by the local Registrars) 1,034

There were 52 twin births during the year. In 43 cases both children were born alive, in 6 cases one child was alive, and in 3 cases both were born dead.

Distribution (Sexes : Legitimacy).

The distribution of the births as regards sex and legitimacy is shown in the following table :—

Births.	Males.	Females.	Totals.
Legitimate	1,893	1,900	3,793
Illegitimate..............	97	76	173
Total	1,990	1,976	3,966

The proportion of male to female births was 1,007 to 1,000.

The percentage of illegitimate births was 4.5, as compared with 5.0 per cent. in 1919, and 5.3 per cent. in 1918. The average percentage for the five years 1910 to 1914 was 3.7.

The total number of births in each of the Wards of the town is given in the table on page 117.

Comparison of Birth-rate with rates for Country generally.

	Per 1,000 population.
England and Wales	25.4
96 Great Towns, including London	26.2
148 Smaller Towns	24.9
London	26.5
South Shields	34.2

(B.) DEATHS.

Death-Rate.

2,000 deaths occurred during the year, the death-rate being 17.2 per 1,000 of the population. This death-rate is the highest among the 96 great towns of England and Wales, according to the Registrar-General's provisional figures for 1920.

The rate for England and Wales was 12.4 ; for the 96 Great Towns, 12.5 ; for the 148 Smaller Towns, 11.3 ; and for London, 12.4.

The South Shields death-rates since 1871 are given in the table on page 115.

Causes of Death.

The chief causes of death were bronchitis (251), pneumonia (230), tuberculosis (204), heart diseases (164), infantile debility and prematurity (163), cancer (105), influenza (96), senility (94), diarrhoeal diseases (82), injuries, accidents, and other forms of violence (65), and nephritis (38).

It will be seen that, of the total death-rate, respiratory diseases (including 156 pulmonary tuberculosis) account for 637 or 32 per cent., while influenza caused 96 deaths. On the other hand the zymotic death-rate, particularly those considered to be due to insanitation, *e.g.*, typhoid fever, diphtheria, etc., is very low. The overcrowded condition of the Borough is to a great extent accountable for the high incidence of respiratory diseases, and for the high mortality from these diseases, inasmuch as the necessary air space not only favours the spread but reduces the patients' chances of recovery.

Age at Death.

Of the total deaths, 479 (*i.e.*, 24 per cent.) were of infants under one year old ; 191 (10 per cent.) were of children between the ages of 1 and 5 years ; 97 (5 per cent.) were aged 5 to 15 years ; 124 (6 per cent.) were from 15 to 25 years old ; 140 (7 per cent.) were aged 25 to 35 years ; 163 (8 per cent.) aged 35 to 45 years ; 258 (13 per cent.) aged 45 to 60 years ; and 548 (27 per cent.) were over 60 years of age. One-third of the deaths were those of children under 5 years, and one-quarter over 60 years of age. Thus 7-12ths. of all the deaths occurred at the extremes of life.

Sex-Distribution of Deaths.

Of the total deaths 1,054 were males and 946 females, a proportion of 1,114 to 1,000.

Seasonal Death-rate.

The following gives the deaths and death-rates for each quarter of the years 1919 and 1920 :—

	No. of Deaths.		Death-rate.	
	1919.	1920.	1919.	1920.
First Quarter	*690	†614	24.7	21.2
Second Quarter	385	472	13.8	16.3
Third Quarter	354	422	12.7	14.6
Fourth Quarter	463	492	16.6	17.0

* 333 of these deaths were due to Influenza, Pneumonia, and Bronchitis.

† 233 ,, ,, ,, ,, ,, ,,

Transferable Deaths.

288 deaths occurred *outside* the Borough (224 being in the South Shields Union Poor Law Institution) among persons whose fixed or usual residence was in the town. These 288 are included in the total number of deaths (2,000) stated above, on which the death-rate of the town is based.

On the other hand, 26 deaths occurred *within* the Borough among persons belonging to other districts. These have been transferred to the districts concerned, and are not included in the total deaths for South Shields.

Deaths in Public Institutions.

The number of deaths of South Shields residents which occurred in public institutions during the year is as follows :—

In the South Shields Union Poor Law Institution	224
In other institutions outside the Borough	40
In the Ingham Infirmary, South Shields	56
In the Borough Isolation Hospital, South Shields	11

This makes a total of 331, which is 17 per cent. of all the deaths during the year. In the years 1917, 1918, and 1919 the percentage was 16, 14, and 15 respectively.

During 1920 the percentage of deaths in institutions was, for the 96 Great Towns, 31 per cent.; for London it was as high as 47 per cent.

Coroners' Inquests.

Coroners' inquests were held regarding 81 deaths—that is, in 4 per cent. of the total deaths during the year.

64 of these deaths were due to various forms of violence, accidents, etc. (See table 1, pages 109 and 110).

Uncertified Deaths.

80 deaths (4 per cent. of the total deaths) were not certified by medical practitioners or by the Coroner. Of this number, 22 were infants under one year old; and 5 were children aged one to five years.

The following statement shows the high percentage of such deaths in South Shields as compared with the country generally:—

England and Wales................	1.2	per cent.
96 Great Towns	0.7	,,
148 Smaller Towns	1.5	,,
London	0.2	,,

Infant Mortality.

There were 479 deaths of infants under one year in the Borough during 1920. This corresponds to an infant mortality rate of 121 per 1,000 births. This is the fifth highest infant mortality rate among the 96 large towns of England and Wales.

Among illegitimate infants 45 died out of 173 births, giving an illegitimate infant mortality rate of 260 per 1,000 births. The rate among legitimate infants was 114 per 1,000 births.

The causes of mortality and the treatment of the question generally is dealt with under the section of this report devoted to maternity and child welfare. (See page 40).

Deaths from Principal Epidemic Diseases.

The seven "principal epidemic diseases" caused 104 deaths, as follows :—

Diarrhoea and enteritis (under two years)	67
Whooping cough	17
Diphtheria	13
"Fever" (enteric, typhus, and simple continued fever)	5
Smallpox	1
Scarlet fever	1
Measles	—

This corresponds to a death-rate from all these diseases of 0.90 per 1,000 of the population.

This is the lowest death-rate from these diseases recorded in the Borough since 1871 except for the year 1916, when the rate was 0.83 per 1,000.

Comparison of South Shields Death-Rates with those of the Country generally.

The following table shows the annual death-rates in England and Wales for 1920 :—

	Death-rate per 1,000 Population							Deaths per 1,000 Births.	
	All causes.	Enteric fever.	Smallpox.	Measles.	Scarlet fever.	Whooping cough.	Diphtheria.	Diarrhœa & enteritis. (under 2 years)	Infant Mortality Rate.
England and Wales ..	12.4	0.01	0.00	0.19	0.04	0.11	0.15	8.3	80
96 Great Towns, including London	12.5	0.01	0.00	0.22	0.04	0.14	0.16	10.4	85
148 Smaller Towns ..	11.3	0.02	0.00	0.19	0.03	0.10	0.14	7.8	80
London	12.4	0.01	0.00	0.22	0.05	0.17	0.22	9.5	75
South Shields	17.2	0.04	0.01	..	0.01	0.15	0.11	16.9	121

NOTIFIABLE ACUTE INFECTIOUS DISEASES.

(A) GENERAL STATISTICS.

Diseases Notifiable.

The Acts and Regulations by which certain infectious diseases are compulsorily notifiable are referred in my Annual Report for 1919. These provisions are still in force, with the exception that measles and German measles ceased to be compulsorily notifiable as from 31st December, 1919, in accordance with the Ministry of Health's Order dated 27th November, 1919.

The notification of cases of tuberculosis is referred to on page 23.

Prevalence.

The following table shows the number of cases of infectious disease (other than tuberculosis) notified during each of the past ten years :—

Disease.	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920
Smallpox	2	1	1	..	1	5	2	..	1	..
Chickenpox	..	..	..	..	..	210	..	..	..	..
Scarlet fever	160	273	1108	1023	925	363	128	76	146	146
Diphtheria and membranous croup	71	62	61	72	35	41	36	26	40	34
Measles	..	..	..	..	..	429	3936	57	2396	..
German measles	..	..	..	..	..	32	199	11	14	..
Enteric fever	33	18	22	65	9	7	5	12	7	10
Continued fever	..	..	..	..	1	..	..	..	..	..
Relapsing fever	..	..	..	..	..	..	..	..	..	..
Dysentery	..	..	..	..	..	..	..	..	8	5
Cholera	..	..	..	..	..	..	..	..	..	..
Plague	..	..	..	..	..	..	..	..	..	..
Typhus fever	..	..	..	..	..	..	..	..	..	..
Trench fever	..	..	..	..	..	..	..	..	..	..
Malaria	..	..	..	..	..	..	..	..	36	14
Cerebro-spinal fever	..	1	..	..	1	3	2	2	..	..
Polio-myelitis	..	3	3	1	2	1	1	..	..	..
Polio-encephalitis	..	..	..	..	..	..	..	..	..	..
Encephalitis lethargica	..	..	..	..	..	..	..	..	6	4
Pneumonia : primary	..	..	..	..	..	..	..	..	64	264
Pneumonia : influenzal	..	..	..	..	..	..	..	..	78	60
Puerperal fever	7	3	5	4	4	5	..	..	2	4
Erysipelas	72	65	80	70	57	55	35	27	41	28
Ophthalmia neonatorum	..	..	..	19	36	52	23	26	36	50
Totals	345	426	1280	1254	1071	1203	4367	237	2875	619

It must be remembered that all the above-mentioned diseases have not been notifiable during the whole of the past ten years. Cerebro-spinal fever and acute polio-myelitis became notifiable in March, 1912 ; ophthalmia neonatorum in April, 1914 ; measles and German measles in January, 1916 ; acute polioencephalitis and acute encephalitis lethargica in January, 1919; and acute primary pneumonia, acute influenzal pneumonia, dysentery, malaria and trench fever in March, 1919. Chickenpox was made notifiable locally for a short period in 1916, during an outbreak of smallpox.

Seasonal Incidence.

The following table shows the number of cases of acute infectious diseases notified during 1920, and the months in which the notifications were received :—

1920.	Smallpox.	Scarlet fever.	Diphtheria.	Enteric fever.	Dysentery.	Malaria.	Encephalitis lethargica.	Primary Pneumonia.	Influenzal Pneumonia	Puerperal fever.	Erysipelas.	Ophthalmia neonatorum.	Totals.
January	..	21	5	1	1	1	..	20	1	..	1	1	52
February	..	14	3	1	1	2	1	32	3	..	2	7	66
March ..	..	4	3	..	..	..	..	59	28	..	5	1	100
April	..	9	..	..	1	1	1	5	7	1	..	7	32
May	..	7	2	2	..	1	..	15	4	..	4	3	38
June	..	8	2	..	..	..	..	3	..	..	2	3	18
July	..	10	1	..	..	4	..	6	2	..	..	7	30
August ..	..	6	1	3	..	..	1	10	..	..	1	7	29
September	..	15	4	2	..	..	..	12	..	..	4	5	42
October	..	10	3	..	..	2	..	27	2	2	2	4	52
November	..	24	4	1	2	1	..	35	6	1	3	2	79
December	..	18	6	..	..	2	1	40	7	..	4	3	81
Totals	..	146	34	10	5	14	4	264	60	4	28	50	619

Age Incidence and Locality.

These particulars are shown in table 11, page 120.

(B) DISEASES IN DETAIL.

Smallpox.

No cases occurred in the Borough during the year.

Three seamen belonging to the town developed smallpox, and were removed to the hospital of the Port of London Authority.

One of these men died. They had contracted the disease on their ship from a case which had been landed at Barry in March.

In addition to the three men referred to above, 47 residents were notified from other ports or districts as having been in contact with cases of smallpox, or as having come from continental towns where smallpox was prevalent, but in none of these persons did the disease develop. They were kept under observation for a period of 21 days.

No vaccinations were carried out under the Public Health (Smallpox Prevention) Regulations, 1917.

Scarlet Fever.

The number of cases of this disease notified during 1920 was 146, precisely the same figure as for 1919. The prevalence still remains low, the attack-rate being 1.3 per 1,000 of the population. The greatest number under treatment in the Borough on any one day was 33.

The disease appeared to be of a mild type ; of the 146 cases there was only one death. The death-rate from scarlet fever was 0.01 per 1,000 of the population. Seventy-five per cent. of the cases was removed to hospital.

Three " return " cases of scarlet fever were discovered, two of which were in one household.

Pneumonia.

PRIMARY PNEUMONIA.—There were 264 cases of acute primary pneumonia notified during the year as compared with 64 notifications in the ten months of 1919 during which the disease was compulsorily notifiable. This shows a very marked increase in the number of cases. While there is no doubt that there was a larger incidence of pneumonia during 1920, these figures do not accurately represent the true increase, since during 1920 there was a great improvement in the requirements as to notification on the part of medical practitioners, and this improvement was more apparent towards the end of the year.

There were 230 deaths in 1920 from all forms of pneumonia (other than influenzal pneumonia) as compared with 174 during 1919. The death rate was 1.98 per 1,000 of the population. As might be expected the greater number, 164 deaths or 71 per cent., occurred during the first and last quarters of the year. 119, or more than half of the total deaths occurred in children under 5 years of age.

Of the deaths, 130 were due to broncho-pneumonia and 19 to lobar pneumonia, while in 81 cases the type was not stated.

It is possible, that many of the deaths from pneumonia, in children particularly, may be due to a former untreated attack of measles or whooping cough, and in the case of adults to a previous attack of influenza.

The following table shows the ages at death :—

Under 1 year	62
Between 1— 5 years	57
,, 5—15 ,,	13
,, 15—25 ,,	13
,, 25—35 ,,	13
,, 35—45 ,,	22
,, 45—55 ,,	17
,, 55—65 ,,	10
Over 65 ,,	23

Pneumonia is one of the principal factors contributing to the death-rate in the Borough, and is a disease which, in my opinion, will decrease when satisfactory housing conditions are available.

It should be remembered that about a third of the population of the Borough live under conditions of overcrowding, with insufficient and often totally inadequate airspace. These conditions, while they may not be the actual cause of the disease, adversely affect the inhabitants in such a way that the resisting power is reduced and their recuperative powers, when attacked, diminished. Under over-crowded conditions a person suffering from pneumonia is at a considerable disadvantage in the matter of nursing, and of all diseases pneumonia is one in which good nursing facilities are required. Side by side with improvement in housing should go the enlightenment of the population as regards the advantages of proper ventilation. I have on occasions walked the length of certain streets at night in which not a single window was open. There is a certain prejudice against the "night-air," whereas, as a matter of fact, the air at night is probably cleaner than that during the day.

INFLUENZAL PNEUMONIA.—Sixty cases of this disease were notified, of which 28 occurred in March. There were no cases in June, August, and September; 4 occurred in May, and 2 in July.

There is no doubt that in pneumonia—influenzal and other—home visiting by experienced Health Visitors is of considerable value. Each case is visited by a Health Visitor, who points out to the friends of the patient the necessity for the strict carrying out of the doctors' orders. The value of adequate ventilation and heating is also emphasised, and in many cases hints on home nursing are given. At the doctors' request, pneumonia jackets were supplied free to those who were unable to afford the cost. The jackets were made by the ladies of the South Shields Public Health Society from material supplied from the Public Health Department.

INFLUENZA.—Although influenza (other than influenzal pneumonia) is not a notifiable disease, it is convenient to consider it in this connexion. Though the disease did not approach epidemic proportions there was a considerable number of cases of influenza in the Borough, particularly in the first four months of the year. There were 96 deaths from this disease, 54 males and 42 females. 47 deaths occurred in the first quarter, 21 in the second, 9 in the third, and 19 in the fourth.

In the epidemic of 1918 there were 461 deaths in the Borough from influenza, and 205 in 1919.

In anticipation of an outbreak of influenza a Sub-Committee of the Health Committee was appointed, and various methods of prevention were considered. All the doctors practising in the Borough were notified that anti-influenza vaccine was available for free distribution. Many of the doctors used the vaccine. Leaflets on precautions to be observed were distributed from the clinics and schools, but in order to allay undue alarm a notice was inserted in the local newspaper. Returns were sent from the schools, and by frequent conversation with members of the medical profession in the Borough one kept oneself informed of the probable number of cases.

Enteric Fever.

There were 10 cases notified as enteric fever in the Borough during 1920 (8 males, 2 females). Eight of the patients were removed to hospital, and of these cases three proved to be conditions other than enteric, the ultimate diagnosis being respectively tuberculous ulceration of the intestine, constipation, and pneumonia.

There was one secondary case (notified at the same time as the primary case in the household affected), otherwise no common source of infection was discovered.

Of the 10 notified cases, 4 were seamen, 1 was a boiler scaler, 1 a ship's bilge and tank cleaner, 1 an apprentice engineer, and 1 a scholar. Of the female patients, 1 was a shop assistant, the other was engaged in home duties.

As regards sanitary conveniences, 6 of the 9 houses had privy receptacles, and 3 had water closets. The secondary case occurred in a house where the form of sanitary convenience was a w.c.

The particulars as to occupation, privy accommodation, etc., are given, as in previous annual reports, in accordance with the suggestions made by Dr. S. W. Wheaton, when he reported to the Local Government Board in 1910 on the excessive prevalence of enteric fever in the County of Durham. He recommended that such data should be collected by the Medical Officer of Health of each district in the county for further investigation.

Five deaths occurred from the disease ; three in hospital, and the two home-treated cases.

The attack-rate of enteric fever has decreased in the country generally, and this decrease appears to have been more rapid since the beginning of the war. This is probably accounted for by the fact that a large part of the population has been inoculated against the disease.

The attack-rate for the Borough is again low, and was during 1920, 0.09 per 1,000 of the population. On analysing the cases, however, this rate becomes lower still, namely 0.06 per 1.000,

Diphtheria (including Membranous Croup).

There were 34 cases of diphtheria notified during the year, an attack-rate of 0.29 per 1,000 of the population. There were 13 deaths, including a resident of South Shields who died elsewhere, but whose death was transferred. The case mortality was 35 per cent., and the death-rate 0.11 per 1,000 of the population.

56,000 units of anti-toxin were supplied from my office for 15 notified cases, and 26,000 units for suspected cases.

In spite of the overcrowded condition of the Borough it is gratifying to note the low incidence of diphtheria. Compared with the average of the County Boroughs of England and Wales the number of cases occurring in South Shields is small. It is difficult to ascribe any definite cause for this except that it may be due to a certain degree of immunity of the population or a low infectivity of the disease. On the other hand, the case mortality is high, being 35 per cent. of cases. I think this is partly due to the fact that on account of the comparative rarity of the disease, throat conditions do not appear to be considered serious enough to call for medical advice. This is borne out by the fact that the average time between the appearance of symptoms and the calling in of a doctor was over 4 days. Further, it would appear that the disease, when it does attack, is of a malignant type. The average length of time from the onset to a fatal termination—in those who died—was only 7 days. Of the 34 cases in the Borough, 7 were removed to hospital—one subsequently proved to be a case of follicular tonsillitis. They were removed not merely for the purpose of isolation, but on account of the desperate condition of the patients and of the entire absence of facilities for nursing in their homes. Of those removed, only one died, a child of four, who was practically moribund on admission. All had symptoms of cardiac involvement. It is probably no exaggeration to say that had the patients been nursed in their own homes few would have recovered, since successful nursing in diphtheria requires a high degree of skill. The low case mortality of those removed to hospital shows how necessary is the provision of hospital accommodation for the treatment of diphtheria apart from the desirability of isolating such cases.

Thirty-one of the cases occurred in houses of four rooms or less. There were three secondary cases.

Encephalitis Lethargica ("Sleepy Sickness").

Four cases of this disease occurred. The age and sex of the patients and the result are as follows :—

No.	Age.	Sex.	Result.	Notified in
1	3	M.	Died.	February.
2	61	F.	Died.	April.
3	16	F.	Died.	August.
4	49	F.	Died.	December.

Each case was enquired into both by myself and one of the Sanitary Inspectors. No relationship or inter-communication between the cases could be discovered, and no cause or predisposing factors could be definitely ascribed. In only one case was there a history of recent indisposition ; he was a child of three years of age, and had had an attack of measles a month prior to the onset of symptoms.

The cases presented a certain amount of similarity. All had fever, lethargy, and tremors. Three had delirium. None had paralysis of the face, trunk, or limbs. No skin eruptions were observed.

The sanitation of the houses in which the cases occurred was satisfactory.

Ophthalmia Neonatorum.

Fifty cases were notified during the year. From January to November there were 47 notifications. In November the Council, on my recommendation, arranged for the supply of a preparation of colloidal silver in a "dropper" bottle free to each midwife practising in the Borough, with instructions as to its use. From December to March, 1921, there were only 4 notifications of such cases. I am satisfied that the adoption of this measure has been instrumental in preventing the occurrence of a number of cases of a disease which is one of the most potent causes of blindness.

Ophthalmia is also referred to in the section of this report dealing with Maternity and Child Welfare (see page 47).

Puerperal Fever.

Four cases were notified, and three deaths were ascribed to this disease. One of the deaths occurred in the Harton Hospital. This case was not notified to me as the Institution is not in the Borough, but the death was transferable in accordance with the Registrar General's rules, as the deceased was a South Shields resident. Reference is made to puerperal fever in the Maternity and Child Welfare Section of this report (see page 47).

Erysipelas.

28 cases were notified. There were three deaths.

Dysentery.

5 notifications of dysentery were received. Four of the patients were ex-service men, and the other was a seaman. There were no indigenous cases. None of the patients were engaged in any occupation connected with the handling or preparation of food or drink for human consumption.

Malaria.

14 cases were notified, 11 ex-service men and three members of the mercantile marine. There were no indigenous cases. Two of the patients died, the cause of death being certified as "Malaria and pneumonia," and "Malaria and general tuberculosis," respectively.

Other Notifiable Diseases.

No cases of the following diseases were reported during the past year, viz. :—Continued fever, relapsing fever, cholera, plague, typhus fever, trench fever, cerebro-spinal fever, polio-myelitis, and polio-encephalitis.

(C). CASES TREATED IN THE ISOLATION HOSPITALS.

Isolation Hospital, Dean Road.

(*a*) Accommodation.—The original hospital (brick) of two pavilions (16 beds in each) was opened for the reception of patients in May, 1883. In 1901, a wood and iron building of 13 beds (at present used as the Municipal Venereal Disease Clinic, but still available for infectious diseases), was transferred from the Whiteleas Smallpox Hospital, bringing the accommodation at the Deans up to 45 beds on the recognised standard of air-space. There is also accommodation for four patients in rooms originally intended for ward kitchens, but now used as side-wards. The total provision is therefore 49 beds, a totally inadequate number for a population of nearly 116,000. The diseases isolated are primarily scarlet and enteric fevers, but when a ward is vacant it is at times possible to treat a few cases of tuberculosis. There is no accommodation available for cases of diphtheria, but on account of the urgency of the condition of the patients such accommodation ought to be always available for this disease. There is an administration block with rooms for nurses, maids, etc., but the rooms are small and the accommodation is insufficient. A laundry block and steam disinfector have been provided.

(*b*) TOTAL CASES UNDER TREATMENT DURING 1920.—The following table shows the *total number* of cases admitted to, and discharged from, the Deans Hospital during 1920 :—

Notified Diseases.	Remaining in on Dec. 31st, 1919.	**Admitted during 1920.**	Discharged.	Died.	Remaining in on Dec. 31st, 1920.
Scarlet Fever	17	110	95	1	31
Enteric fever	1	8	5	3	1
Diphtheria	..	7	3	1	3
Malaria	..	1	1	..	..
Dysentery	..	1	1	..	..
Influenza	..	1	1	..	..
Influenzal pneumonia	..	2	1	1	..
Primary pneumonia	..	1	..	1	..
Pulmonary tuberculosis	1	20	20	1	..
Other tuberculosis	..	5	3	2	..
Suspected enteric fever	..	1	1	..	..
Scabies	..	21	21	..	..
Totals	19	178	152	10	35

Included in the statement of admissions given above are the following naval and merchant service cases admitted under arrangements with other authorities :—Dysentery, 1 ; Influenza, 1 ; Influenzal pneumonia, 1 ; Primary pneumonia, 1.

(*c*) Average Number of Cases under Treatment during each month of 1920.—The following table gives the *average daily number* of cases under treatment in hospital during each month of 1920 :—

Notified Diseases.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Whole Year.
Scarlet fever	16	18	12	7	9	12	12	11	10	16	15	24	13
Enteric fever	1	1	1	. .	. .	. .	. .	2	2	1	0	1	1
Other	2	5	1	1	5	10	7	8	9	7	6	4	6
All diseases . .	19	24	14	8	14	22	19	21	21	24	21	29	20

(*d*) Total Cases under Treatment for past 10 years.—The following table shows the number of cases admitted during each of the *past ten years* to the Deans Isolation Hospital. The figures from 1914 include naval and military patients.

Notified Diseases.	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920
Scarlet fever	115	217	645	718	668	301	100	59	86	110
Enteric fever	24	15	8	47	3	3	4	13	4	8
Other diseases	4	5	1	37	59	25	33	153	90	60
Totals	143	237	654	802	730	329	137	225	180	178

(*e*) Scarlet Fever Cases treated in Hospital.—110 cases of scarlet fever were admitted to the Deans Hospital during the year ; the *greatest number* under treatment at any one time was 31 on December 31st. The lowest number was 5, from April 19th to 23rd.

The *average stay* in hospital of scarlet fever patients was 41 days.

There was only one death in the hospital among scarlet fever patients.

The *complications* from which certain of the scarlet fever patients suffered were as follows :—

	Present on admission.	Developed after admission.
Adenitis	3	1
Albuminuria........	2	5
Otorrhoea	2	6
Pneumonia, Broncho	..	2
Total	7	14

Three cases were found not to be scarlet fever, the ultimate diagnosis being diphtheria.

(*f*) ENTERIC FEVER.—Of the 8 cases admitted, 5 proved to be enteric fever, the ultimate diagnosis in the remaining cases being tuberculous ulceration of intestines, constipation, and pneumonia, respectively.

(*g*) DIPHTHERIA.—Six cases of this disease were admitted during the year, (a seventh case proved to be tonsillitis). All were seriously ill ; tracheotomy was required in 3 patients. It was probably no exaggeration to say that had it not been for the skilled nursing—which could not be carried out in their homes—the mortality would have been higher. The need for hospital accommodation for diphtheria is thus exemplified. One death occurred from diphtheria ; the patient was practically moribund on admission.

(*h*) TUBERCULOSIS.—During the summer months it was possible to accommodate all the fever cases in one pavilion. A number of cases of tuberculosis were therefore treated in the unoccupied wards and in the grounds. The method adopted was to use the wards during the night, and to transfer the patients, in bed, to the grounds each morning. They were protected from the sun, when intense, by hats, umbrellas or otherwise, and for rainy weather, temporary shelter was erected. Pulmonary cases derived considerable benefit from their stay in hospital. Of the non-pulmonary cases, three were admitted who suffered from knee-joint disease which was treated by extension, plaster casts being subsequently applied. The remaining two were hopeless cases removed from overcrowded homes.

(*i*) OTHER CASES.—During a period in which a ward was empty 21 school children were treated for scabies ; the average duration of stay was 8 days, ranging from 3 to 22 days.

Seven other cases were admitted to hospital, as detailed on page 15.

Proposed New Hospital.

A tender was accepted for the erection at Cleadon Park of an isolation hospital of 88 beds, and a sanatorium for 100 cases of tuberculosis. The details of the scheme, with plans, etc., were submitted to the Ministry of Health in October, but at the end of the year the sanction of the Ministry to proceed with the scheme had not been received. In the proposed hospital a pavilion will be devoted to scarlet fever, another to enteric fever, and a third to diphtheria. There will also be a ward on the cubicle principle for mixed infections. Adequate isolation accommodation will be of material value in dealing with epidemics and the provision of a ward for mixed infections will simplify the administration of the hospital. It is with great difficulty that a case of mixed infection, *e.g.*, scarlet fever and chickenpox, can de dealt with under the present conditions. Such a ward is a most necessary adjunct since a good many cases which are sent in as scarlet fever are found to have also other infectious conditions, or such conditions may develop within a few days of admission, and if the case is not promptly isolated the other patients in the ward are apt to contract the disease. It is proposed also to erect a properly equipped discharge block. There is no discharge block at the Deans Hospital, and this adds to the difficulties of administration.

Smallpox Hospital, Whiteleas.

(*a*) ACCOMMODATION.—Cases of smallpox from the Borough are accommodated at Whiteleas Hospital. The present Whiteleas Smallpox Hospital, which is of brick, was built by the South Shields Town Council, and was opened in 1901, in place of the then existing wood and iron building, part of which was subsequently removed to the Deans Hospital.

This hospital has 30 beds for smallpox cases, in addition to quarters for contacts and accommodation for a resident staff.

(*b*) HOSPITAL BOARD.—The North East Durham Joint Smallpox Hospital Board, formed in 1910, took over the Whiteleas Hospital in October, 1911. The Medical Officer of Health for the County Borough of South Shields is the Medical Officer to the Board. The constituent authorities of the Hospital Board are :—

The County Boroughs of Sunderland and South Shields ;

The Urban Districts of Felling, Hebburn, Jarrow, and Southwick ;

The Rural Districts of South Shields and Sunderland.

(*c*) Cases under Treatment during 1920.—No case from the South Shields County Borough was admitted during the past year. A suspected case of smallpox from the Rural District of South Shields was removed to the hospital in August last, but it was finally diagnosed as pemphigus.

(*d*) Total Cases under Treatment in last 28 years.—

The following is the total number of cases from all areas treated in the Hospital since it was opened in 1893 :—

Year.	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903
Smallpox	51	14	22	12	3	9	3	2	..	71	37

Year.	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914
Smallpox	103	101	2	..	..	1	15	2	1	1	..

Year.	1915	1916	1917	1918	1919	1920					
Smallpox	1	7	2	..	1	..					

CERTAIN NON-NOTIFIABLE DISEASES.

Whooping Cough.

There were 17 deaths from this disease, all during the last half of 1920; 5 occurred in the third quarter, and 12 in the fourth Cases of whooping cough are notified from the schools, and the Health Visitors visit each case. The Health Visitors frequently learn of other cases during their visits for other conditions, and they advise the parents as to medical attention, etc. About 200 cases were reported by teachers and in other ways.

Measles.

By the Rescission Order of the Ministry of Health this disease, which had been compulsorily notifiable since 1916, ceased to be notifiable by parents and doctors as from 31st December, 1919. During the past year the Health Department was chiefly dependent on reports from schools as to the occurrence of cases of measles. The disease was prevalent in the first four months of the year. As each case became known a visit was paid to the home of the child by one of the Health Visitors, and advice was given as to the care of the patient. The attention of a doctor was advised in every case. A great many people do not seek medical advice for measles, and consider it a trivial complaint, whereas in fact, this disease is a cause of a great deal of ill-health, and is often followed by serious complications.

460 cases were reported, and were investigated by the Health Visitors. There were no deaths from measles in the Borough during 1920, and no schools were closed on account of the disease.

Diarrhoea and Enteritis.

The deaths from these diseases in children under two years of age numbered 67. The death-rate was 0.58 per 1,000 of the population, or 16.9 per 1,000 births.

The age distribution of the children under one year old who died from these diseases was as follows :—

5 were under one month.
9 were one to three months old.
17 were three to six months old.
13 were six to nine months old.
10 were nine to twelve months old.

The ward distribution is shown in table 2, page 111, and in table 8, page 117.

The disease causes a high mortality among young children each year. It is probably due in every case to the ingestion of infected food, the infection being conveyed to food by means of flies ; consequently, if there is a reduction in the number of flies, the disease should materially decrease. The attention of the public during 1920 was directed to the fly as a potential danger by means of leaflets distributed from the various clinics, by public posters and newspaper reference. Action was taken under the Byelaws to ensure the frequent removal of manure from stables.

Further reference to this disease is made in the Maternity and Child Welfare Section of this report.

Bronchitis.

There have been 248 deaths certified as due to bronchitis, and in addition three were due to bronchial catarrh. The death-rate was 2.16 per 1,000 of the population during 1920.

As in the case of pneumonia the greatest number of cases, as far as can be judged from the death returns, occurred during the cold months of the year.

82 deaths occurred in the 1st quarter.
56 ,, ,, 2nd ,,
48 ,, ,, 3rd ,,
65 ,, ,, 4th ,,

It is also probable, as with pneumonia, that many of the deaths among young children, certified as due to bronchitis followed an attack of measles or whooping cough.

The ages at which death occurred were as follows :—

Under 1 year	81
Between 1 and 5 years	41
Over 55 years	95
Other ages	34

Cancer.

The total number of deaths certified as due to cancer was 105, equivalent to a death-rate of 0.91 per 1,000 of the population.

The age-distribution of the deaths was as follows :—

Under 20 years	1
20-25	1
25—	4
35—	13
45—	26
55—	28
65—	24
75—	8

The sex-distribution and localisation of the disease are shown in the sub-joined table :—

Parts affected.	Males.	Females.	Total.
Stomach, liver, etc.	14	15	29
Intestines, rectum & peritoneum	13	9	22
Female genital organs	..	27	27
Mouth, tongue, etc.	6	..	6
Breast	..	6	6
Skin	1	1	2
Other parts or unclassified	3	10	13
Totals	37	68	105

During the 10 years 1891—1900 the mean annual death-rate from cancer was 0.63 per 1,000. During the next 10 years, 1901-1910, the mean rate was 0.72. For the years 1911-1920 the mean annual death-rate was 0.90 per 1,000 of the population.

It would appear from these figures that the disease known as cancer is increasing, but although it is probable there is some increase it must be remembered that with the increased medical knowledge the diagnosis of cancer is now more accurate, and it is possible that deaths which in earlier years might have been ascribed to other diseases are now assigned to cancer.

TUBERCULOSIS.

Incidence of the Disease.

The number of South Shields residents on the Tuberculosis Register at the beginning of 1920 was......	2,022
The number notified during the year	360
	2,382

Of these, 147 died during the year (in addition to the 57 deaths from tuberculosis which had not been notified) and 375 names were removed from the current register for other reasons, leaving at the end of 1920, 1,860 cases in the Borough, of whom 1,213 suffered from pulmonary, and 647 from non-pulmonary tuberculosis.

The following table shows the reasons for which 375 cases were removed from the register.

Found on examination not to be suffering from tuberculosis	2
Cases who showed no active signs or symptoms for 2 years	85
Left the district	74
Two years untraced	39
Died from causes other than tuberculosis	13
Apparently well for two years	159
Previously notified in another name	3

Notification.

There were 360 notifications of new cases received during the year, as follows :—

Pulmonary tuberculosis..............	270
Non-pulmonary tuberculosis..........	90

In the following table is shown the number of notifications of tuberculosis under the Regulations of 1908 to 1912.

	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920
Pulmonary	104	70	116	478	319	354	437	294	331	227	268	270
Non-pulmonary	..	..	..	..	188	133	235	203	173	119	94	90
Total	104	70	116	478	507	487	672	497	504	346	362	360

All cases of pulmonary tuberculosis were made notifiable from 1st Januray, 1912. Prior to that date only cases resident in or attending institutions were notified.

Non-pulmonary tuberculosis became notifiable on February 1st, 1913.

It has been stated above that 57 cases (40 pulmonary, 17 non-pulmonary) were not notified before death. This figure is a considerable improvement on that for 1919, when 91 cases had not been notified. When it is discovered from the death returns that a case of tuberculosis has died for whom no previous notification has been received a letter is sent to the doctor who certifies the death, drawing his attention to the omission, and pointing out his obligations under the Regulations. Many omissions are no doubt due to inadvertence, but it must be pointed out that the Regulations are obligatory and impose a penalty. It may become necessary to take such steps as will enforce more strict compliance with the Regulations.

Nine of the unnotified cases were transferable deaths of residents of the town who died in institutions outside the Borough.

Deaths from Tuberculosis.

During the year there were 204 deaths from tuberculosis, as follows :—

Pulmonary tuberculosis.............	156
Other forms of tuberculosis	48

This corresponds to a death-rate of 1.76 per 1,000 of the populations, viz. :—

Pulmonary	1.35
Other forms	0.41

and represents 10 per cent. of all deaths. Although this rate is still much higher than it ought to be, it is the lowest death-rate from this disease recorded in the Borough.

The following table shows the death-rate from tuberculosis, and the general death-rate for the past 11 years.

	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920
General death-rate ..	15.2	17.4	16.0	17.9	17.7	19.4	17.0	18.6	22.6	17.0	17.2
Tuberculosis—											
Pulmonary	1.25	1.19	1.53	1.33	1.31	1.67	1.73	1.96	1.93	1.30	1.35
Other forms	.70	.58	.39	.66	.58	.67	.68	.71	.61	.63	.41
All forms	1.94	1.77	1.92	1.99	1.89	2.34	2.41	2.67	2.54	193	1.76

In South Shields there is a more or less permanent colony of Arabs to the number of about 400. Many of these people appear to be somewhat prone to the disease, and when attacked by it appear to have low powers of resistance. During 1920 16 deaths occurred among Arabs, representing about 8 per cent. of the deaths from tuberculosis. During the last three years there have been 33 deaths of Arabs from tuberculosis.

Many Arabs live in seamen's lodging houses, and it is necessary for the Sanitary Inspectors to constantly direct their attention to the inspection of these houses.

Disinfection.

During the year endeavour was made to secure that disinfection be carried out after deaths from tuberculosis in all instances where this appeared desirable.

In 77 per cent. of the cases where deaths had occurred from tuberculosis in any form, the rooms which had been occupied by the patients were disinfected, and in 82 per cent. the bedding and other fabrics were removed to the Isolation Hospital for disinfection. 1.7 per cent. of the bedding, etc., was destroyed by request of the owners. Many of the deaths, where no home disinfection is recorded as having been carried out, occurred in institutions outside the Borough. Seven houses were disinfected after removal of patients to Institutions.

Treatment.

1.—RESIDENTIAL INSTITUTIONS.—There are no residential Institutions under the control of the Town Council for the institutional treatment of tuberculosis. An arrangement exists between the South Shields Health Insurance Committee and various sanatoria for the treatment of insured persons suffering from tuberculosis. The number of beds available is nine (7 for men and 2 for women) although it is at times possible to vary these figures. The Council have an arrangement with the Ingham Infirmary, South Shields, whereby uninsured persons suffering from surgical tuberculosis can be treated, the Council paying the operation fees and maintenance charges. A similar arrangement exists between the Insurance Committee and the Infirmary for the surgical treatment of insured persons. No definite number of beds are allocated for this purpose. Cases are admitted as beds become available.

In October, 1920, the Council accepted a tender for the erection of a sanatorium and hospital of 100 beds for the treatment of tuberculosis, and a hospital of 88 beds for infectious diseases, on a site of 65 acres at Cleadon Park, purchased by the Corporation in 1918. Plans, specifications and bills of quantities, with full details of the scheme were submitted to the Ministry of Health for their approval, and for sanction to commence building operations. Up to the end of the year the approval and sanction had not been given. It is to be hoped that there may be as little delay as possible in obtaining the sanction of the Ministry having regard to the fact that accommodation for cases of tuberculosis and infectious disease is urgently required.

TREATMENT IN SANATORIA.—On January 1st there were 14 insured persons under treatment in sanatoria. During the year 43 persons were admitted and 42 persons were discharged, leaving 15 under treatment on 31st December, 1920. The total number treated during 1920 was 57, as follows :—

	Men.		Women.	Total.
	Discharged Soldiers.	Others.		
Under treatment on 1/1/20 ..	8	6	..	14
Admitted during 1920	26	17	..	43
Discharged during 1920	24	17	..	41
Died	1	..	..	1
Under treatment on 31/12/20	9	6	..	15
Total treated during 1920 ..	34	23	..	57

NOTE.—The cases referred to in the above table include patients sent to sanatoria by Friendly Societies, etc., direct, in addition to patients sent by the Insurance Committee.

The *total number* of admissions to sanatoria notified during 1920 was 51.

Of the 41 patients discharged from sanatoria during the year, 26 were classified as "improved," 4 as "not improved," 3 left sanatorium against advice, 4 were reported as unsuitable for sanatorium treatment, in 3 cases no report upon condition was received, and 1 was discharged for breach of rules.

	Men.		Women.	Total.
	Discharged Soldiers.	Others.		
Improved	12	14	..	26
Not improved..............	4	..	..	4
Left sanatorium against advice	3	..	..	3
Unsuitable for San. treatment	1	3	..	4
No report received	2	1	..	3
Discharged for breach of rules	1	..	..	1
Total	23	18	..	41

TREATMENT OF SURGICAL CASES AT INGHAM INFIRMARY.—Recommendations for treatment under the arrangements abovementioned :—

Insured, 7. Non-insured, 23.

This does not, of course, represent the total number of admissions to the Infirmary of patients suffering from tuberculosis.

Cases Treated at the Deans Hospital.—When there is accommodation available a few patients suffering from tuberculosis can be admitted to the Deans Hospital, but it is only possible to do so to a very limited extent, and only in those cases where the home conditions are very unfavourable, particularly when there is overcrowding.

The number of cases treated at the Deans Hospital during the year was 25 (20 pulmonary ; 5 non-pulmonary).

2.—The Municipal Tuberculosis Clinic.—Staff.—The clinic is under the administrative supervision of the Medical Officer of Health. During the year the clinical work was in charge of Dr. Douglas Martin. The remainder of the staff of the clinic consists of one nurse, who is also responsible for the dispensing of medicines, and one clerk, chiefly concerned with the work of record keeping, the other clerical work being undertaken by the clerks of the Health Department. There is also a laboratory assistant.

In addition, there are seven Health Visitors, each in charge of a district, who devote a definite part of their time to tuberculosis visiting and the following-up of cases.

Premises.—The clinic is accommodated in a suite of rooms in the Public Health Department, and consists of a waiting room, dressing rooms, consulting room, laboratory, office and dispensary. X-ray and Ultra-Violet ray apparatus have been installed in a room adjoining.

Scope of the Work.—On receipt of a notification of a case of tuberculosis, a visit is paid to the home of the patient by the Health Visitor of the district, who makes the necessary investigations into the home circumstances and records the results on a card. The patient is requested to come to the clinic for examination after obtaining the doctor's consent to do so. In many cases the doctor sends the patient to the clinic for examination before notification. Upon examination at the clinic the treatment is decided upon usually after consultation or communication between the doctor and Tuberculosis Officer.

In the case of insured patients whom it is decided to treat in their own homes, the doctor sends a quarterly report on the progress of the case. The practice fell into abeyance during the war, and it has not yet been re-established in view of the fact that the responsibility for the treatment of insured persons will shortly be transferred from Insurance Committees to County and County Borough Councils, when it may be necessary to make some other arrangements.

The co-operation, as will be seen, between the doctors and the clinic is fairly close. Many of the doctors take advantage of the facilities offered by the clinic for diagnosis and treatment.

In cases where the diagnosis is doubtful, patients are asked to present themselves for further examination, and as a rule no difficulty is experienced in inducing them to do so.

Contacts of positive cases are asked to attend for examination. During 1920, 111 contacts were examined, and of these 26 were found to be suffering from tuberculosis. This branch of the work is essential if cases are to be obtained in a curable stage. It is intended to extend this part of the work. No dental treatment is provided for tuberculous persons, nor is home nursing, beyond what advice and assistance the Health Visitors can give on their visits to homes of domiciliary cases. Patients who have been treated in a sanatorium or at the clinic are visited at regular intervals—usually once a quarter, by the Health Visitors. They are exhorted to follow out the principles of living which will tend to prevent a recurrence of the disease. They are also advised to come to the clinic for examination at least once a year and to consult their own doctor or Tuberculosis Officer should any symptoms recur.

As a rule, little difficulty is experienced in keeping in touch with patients. During the year the Health Visitors paid 5,708 visits to the homes of tuberculous patients. Of these 373 were first visits. Patients who have had no active signs for a period of two years are taken off the current register.

Co-operation between the school medical service, the maternity and child welfare centre and the tuberculosis clinic is close. Any suspicious case appearing at one or other of the former services is referred to the Tuberculosis Officer for his opinion.

Treatment at the clinic consists, in addition to giving advice as to hygiene, etc , of the exhibition of tuberculin in suitable cases, the relief of symptoms by medicines and otherwise, and the administration of cod liver oil emulsion. The latter is prepared in the dispensary.

Two sessions a week are devoted to the treatment of non-pulmonary types of the disease, such as enlarged glands, discharging sinuses, inoperable joint and bone conditions, cases requiring dressings, etc., and as occasion arises the application of plaster casts.

Extra nourishment in the form of an extract containing malt, lecithin, etc., is given to tuberculous patients. No arrangement for providing ordinary articles of diet for insured or non-insured patients are, at present, in operation.

The following is a detailed summary of the work of the clinic during 1920.

EXAMINATIONS AT THE CLINIC.

Total number of examinations made at the clinic in 1920	1,134
New cases examined	456

Of these new cases, there were 241 in whom no evidence of tuberculosis was discovered. The remaining 215 were found to be suffering from tuberculosis, as follows :—

Pulmonary tuberculosis..............	149
Non-pulmonary tuberculosis	66

Non-insured persons examined for the first time at the clinic during 1920 :—

	Found to be suffering from tuberculosis.		Not tuberculous.	Total.
	Pulm.	Non-pulm.		
Men	..	3	2	5
Women	11	8	27	46
Boys (under 16)	35	27	87	149
Girls do.	35	20	104	159
Total	81	58	220	359

Insured persons examined for the first time at the clinic during 1920 :—

	Found to be suffering from tuberculosis.		Not tuberculous.	Total.
	Pulm.	Non-pulm.		
Men	64	6	21	91
Women	4	2	..	6
Total	68	8	21	97

Examination of Insured Applicants for Sanatorium Benefit.—The number of new applications received from the Clerk to the Insurance Committee for the County Borough of South Shields during the year was 63 : 59 men and 4 women. Of these applicants 53 were subsequently examined at the Tuberculosis Clinic and where suitable, recommended for various forms of sanatorium benefit as follows :—

Dispensary and sanatorium	15
Dispensary	17
Domiciliary	10
Sanatorium	5
No treatment required	2
Not tuberculous	4
Total	53

Of the remaining ten applicants who were not examined, 8 did not attend for examination when requested to do so, and 2 died shortly after making application.

Examination of Discharged Soldiers and Sailors.—During the year 42 ex-service men were referred to the Local Tuberculosis Officer by the Deputy Commissioner of Medical Services, South Shields Area, for examination and report. Of these 28 were found to be suffering from tuberculosis, attributable to or aggravated by war service. For the Local War Pensions Committee 84 ex-service men were examined periodically.

Treatment at the Tuberculosis Clinic.—There were 13,996 attendances made at the clinic during 1920.

On 1st January, 1920, there were 394 cases of tuberculosis under treatment. During the year 177 cases were taken on, and the names of 287 removed from the clinic treatment register. On the 31st December there remained 284 patients under active treatment at the clinic.

Of the 287 patients whose names were removed from the register during 1920, 126 patients were very much improved.

The following tables summarise the work of the clinic for the year :—

Patients under treatment at the Tuberculosis Clinic on the 1st January, 1920.

	Men.	Women	Under 16.		Total.
			Boys.	Girls.	
Insured : Pulmonary	70	24	..	..	94
Non-pulmonary	4	..	..	..	4
Non-insured : Pulmonary..	5	57	58	74	194
Non-pulmonary	..	8	39	55	102
Total	79	89	97	129	394

Patients taken on for treatment at the Tuberculosis Clinic during 1920 :—

	Men.	Women	Under 16.		Total.
			Boys.	Girls.	
Insured : Pulmonary	57	6	..	..	63
Non-pulmonary ..	2	1	..	..	3
Non-insured : Pulmonary..	..	8	35	30	73
Non-pulmonary	..	4	16	18	38
Total	59	19	51	48	177

Patients whose names were taken off the Clinic treatment register during 1920 :—

	Men.	Women	Under 16.		Total.
			Boys.	Girls.	
Insured : Pulmonary......	61	4	..	..	65
Non-pulmonary ..	2	..	..	..	2
Non-insured ; Pulmonary..	3	36	52	49	140
Non-pulmonary	..	8	26	46	80
Total	66	48	78	95	287

Patients under treatment at the Tuberculosis Clinic on 31st December, 1920 :—

	Men.	Women	Under 16.		Total.
			Boys.	Girls.	
Insured : Pulmonary	66	26	..	..	92
Non-pulmonary ..	4	1	..	..	5
Non-insured : Pulmonary..	2	29	41	55	127
Non-pulmonary	..	4	29	27	60
Total	72	60	70	82	284

TREATMENT OF DISCHARGED SOLDIERS AND SAILORS.—During the year 84 ex-service men suffering from tuberculosis were recommended treatment as follows :—

Dispensary and sanatorium	28
Dispensary and hospital	2
Dispensary	43
Domiciliary and hospital	—
Domiciliary	7
Sanatorium	2
Hospital	1
Farm colony	1

3. SHELTERS.—Two shelters have been provided. These can be erected in an open space adjoining the home of a tuberculous patient, or in a back yard. They have been continually in use since 1915 for different patients. Each shelter is complete with bed and bedding.

Many of the back yards in the Borough are unsuitable, being either too small to allow of the shelter being used, and in others the yard is common to several tenants.

VENEREAL DISEASES.

The Council's scheme for the diagnosis and treatment of venereal diseases was commenced as a result of the Venereal Diseases Regulations, 1916, and at first consisted in arrangements whereby South Shields patients could be treated at the Royal Victoria Infirmary, Newcastle, and the Royal Infirmary, Sunderland. Later, negotiations were entered into with the management of the Ingham Infirmary, South Shields, but it was not found possible to arrange for the treatment of these cases. The municipal treatment centre was therefore established in May, 1919, in the old smallpox hospital, which had been transferred some years ago from Whiteleas, and erected in the grounds of the Deans Hospital. Further improvements and alterations were carried out early in 1920, and included the provision of rooms for waiting, dressing and treatment, and an irrigation room, dispensary, laboratory and preparation room. Accommodation was provided for 8 male and 4 female in-patients. There are two small rooms in the building, one of which is used as an office, and the other as a storeroom.

The clinic is centrally situated, and is easily reached from all parts of the Borough. The entrance is separate from the main entrance to the hospital, and is so situated that patients are unobserved, a fact which I think is conducive to their regular attendance. The clinic is open every morning from 9-30 to 12-30, and on Tuesday and Friday evenings at 6 p.m. for men, and on Monday and Wednesday afternoons at 2 p.m. for women.

The provision of facilities for irrigation for men suffering from gonorrhoea has been attended with considerable success both in promoting regular attendance and in shortening the course of the disease. Under the present conditions of overcrowding, and the shortage of houses, many patients are unable to obtain the privacy necessary for irrigation at home. The irrigation room is open at the clinic at all reasonable hours between clinics. The facilities provided are adequate, and no extension is at present necessary.

Staff.

Dr. W. J. F. Mayne was in clinical charge of the centre until September, and on his resignation a rota of local medical practitioners carried on the work until Dr. C. G. Timms assumed his duties in December. Nurse Nixon and Mr. R. Brason (Male Nurse), with one ward maid, continued their duties throughout the year.

Scope of the Work.

As outlined in my Annual Report for 1919, all patients on presenting themselves for the first time are examined and advised as to treatment. They are given a pamphlet dealing with the dangers of the disease, and the adequacy of the treatment if persisted in. Other literature indicating the methods of self-disinfection is distributed. Since a number of patients discontinue their attendance on the disappearance of symptoms it is necessary to warn patients of the risks attending insufficient treatment. If in spite of advice and admonition a patient absented himself before the completion of treatment it was thought desirable to write a letter or series of letters reminding him of his neglect. These letters were non-committal, and did not contain any reference to venereal disease, but it was found that when the system became known some patients gave false addresses. It also became apparent that the system might act as a deterrent to patients who might be desirous of being treated at the clinic, but who would not attend if there was a likelihood of other members of their household being made aware of the fact. The system was therefore allowed to fall into abeyance, and is now only used in occasional cases.

The neglect on the part of many patients to continue treatment is one of the obstacles to the efforts being made to reduce the incidence of venereal disease. I am still of the opinion expressed in my last report that some system of notification of venereal diseases is advisable, and that legislation should be promoted to provide for the isolation of infected persons, or at least to compel infected persons to continue treatment until they become non-infectious.

The following table shows the number of cases treated in the South Shields Clinic during 1920. It is to be noted that the total cases represent the sum of the new cases taken on for treatment during the year, plus those who were under treatment at the end of 1919.

(*a*) CASES TREATED IN THE SOUTH SHIELDS CLINIC DURING 1920.

	NEW CASES.				TOTAL CASES.	
	Male.	Female.	Residents.	Non-residents.	Male.	Female.
Syphilis........	210	30	131	109	285	48
Soft chancre....	78	3	51	30	80	3
Gonorrhoea	385	25	248	162	454	30
Non-venereal disease....	194	36	180	50	194	36
Total	867	94	610	351	1,013	117

The comparatively large number of non-residents is due to the fact that South Shields is a large seaport with a considerable floating population, consisting mostly of seamen. Of the non-residents 55 cases belonged to the Administrative County of Durham and 42 to a neighbouring County Borough. Other cases included a number from 12 other Counties in England and Wales, a number from Scotland and Ireland, 18 County Boroughs, 8 colonies, and 17 foreign countries.

Table (*b*) shows the number of attendances at the clinic during the year. Of the total, 13,674 attendances were made by residents, and 1,163 by non-residents.

(*b*) TOTAL ATTENDANCES AT CENTRE.

	Males.	Females.	Total.
Syphilis	2,329	676	3,005
Soft chancre	1,543	30	1,573
Gonorrhoea	9,866	87	9,953
Non-venereal disease	279	27	306
Total	14,017	820	14,837

From these tables it will be seen that the attendances of men suffering from syphilis numbered on the average 8.1, while those for women averaged 14. This difference is attributable to the fact that a number of men, mostly seamen, attend once or twice, and are transferred to another centre. In the case of men suffering from gonorrhoea the average attendances were 21.7, while those for women were only 2.9. It is regrettable that it is not possible to enforce the continued attendance of women patients who may be such potent factors in the spread of the disease. The average attendances for all venereal diseases show in the case of men, a considerable improvement on the year 1919, while in the case of women the average attendances show a decrease.

Of the total cases who presented themselves at the clinic, 230 were found to be non-venereal ; the majority of these were patients who had been exposed to infection, and who feared the consequences. I think this fact is of considerable importance in estimating the adequacy of the provision made, and of judging of the readiness of patients to avail themselves of the facilities provided for diagnosis and treatment.

Table (*c*) shows the number of cases who were discharged or ceased attending during the year and those still under treatment at the end of December.

(*c*) Cases Discharged or ceased attending.

	Syphilis.		Soft Chancre.		Gonorrheoa.	
	M.	F.	M.	F.	M.	F.
Ceased attending before completing treatment	18	2	39	3	..	..
Ceased attending after completing treatment, but before final tests as to cure	37	4	..	..	133	17
Transferred to other centres..	15	..	..	..	..	..
Discharged after completion of treatment and observation	8	..	34	..	47	2
Under treatment, 31-12-20 ..	207	42	7	..	274	11

A patient is not discharged until very stringent tests reveal no trace of the disease. In the case of syphilis the course of treatment is controlled by the Wasserman reaction, and a negative result six months after the last injection is required before discharge. In the case of gonorrhoea, the tests include prostatic massage, passage of bougie, and resumption of the usual habits as regards alcohol, food, spices, etc., and where indicated, the provocative injection of vaccine.

In-Patient Treatment.

61 new cases (of whom 60 were males) were treated as in-patients in the wards attached to the clinic, viz., syphilis, 13 ; soft chancre, 18 ; gonorrhoea, 22 ; non-venereal disease, 8.

Table (*d*) shows the number of in-patient days, and of these 451 days were accounted for by residents of the Borough, and 730 days by non-residents.

(*d*) Total "In-Patient" Days.

	Males.	Females.	Total.
Syphilis	350	..	350
Soft chancre	462	..	462
Gonorrhoea	297	6	303
Non-venereal disease ..	66	..	66
Total	1,175	6	1,181

Salvarsan Substitutes used at the Centre.

The number of doses of salvarsan substitutes and the drugs used are shown in the following table. Of the total, 2,340 were administered to out-patients and 47 to in-patients: 1,851 to residents, and 536 to non-residents.

(e) SALVARSAN SUBSTITUTES USED AT THE TREATMENT CENTRE.

Name of drug.	Dose.	Number of doses.
Neokharsivan	0.15 gm.	1
	0.3 ..	8
	0 45 ,,	95
	0.6 ,,	121
	0.9 ,,	2
Novarsenobillon	0.15 ,,	1
	0.3 ,,	92
	0.45 ,,	333
	0.6 ,,	1,477
	0.75 ,,	224
	0.9 ,,	23
Neodiarsenol	0.6 ,,	10
Total	..	2,387

Co-operation of the Medical Profession.

A letter, giving details of the facilities provided for the diagnosis and treatment of venereal diseases was sent to all the local medical practitioners, a number of whom take a considerable amount of interest in the work of the clinic. Patients are frequently sent for diagnosis and treatment, and during the year a rota of three local doctors undertook the work of the clinic in the absence of a medical officer. Three other doctors visited the clinic for the purpose of consultation or otherwise. Seven were supplied with salvarsan substitutes during the year as is shown in the following table.

(*f*) Salvarsan Substitutes supplied to Medical Practitioners in the Borough.

Name of drug.	Dose.	Number of doses.
Neokharsivan	0.6 gm.	30
Novarsenobillon	0.15 ,,	10
	0.3 ,,	47
	0.45 ,,	83
	0.6 ,,	148
	0.75 ,,	36
	0.9 ,,	51
Total	..	405

Pathological Examinations.

In accordance with arrangements entered into in 1916, the following examinations of pathological material from South Shields patients were made at the Durham University College of Medicine, Newcastle-on-Tyne, during the year 1920. These examinations are in addition to those carried out at the South Shields Clinic, but they include specimens sent from the clinic. It will be seen that 13 private medical practitioners (11 of whom were South Shields doctors) sent 107 specimens to the College of Medicine.

572 specimens were sent from the clinic. The number of microscopical examinations made at the local clinic was 331.

(*g*) Pathological Examinations.

Source of Material.	Nature of Examination.		Total.
	Wassermann reactions.	Microscopical.	
South Shields V.D. Clinic	505	..	505
Newcastle V.D. Clinic	159	16	175
Sunderland V.D. Clinic	9	..	9
Harton Hospital, South Shields	15	..	15
Ingham Infirmary, South Shields	..	..	..
Throat, Nose and Ear Hospital, Newcastle	5	..	5
Private practitioners (13)	98	9	107
Total	791	25	816

South Shields Cases Treated in other Centres.

In addition to the cases dealt with at the local municipal treatment centre, I learn from returns received that South Shields residents received treatment at the Royal Victoria Infirmary, Newcastle; the Royal Infirmary, Sunderland; the "Dreadnought" Hospital, Greenwich; the Royal Hospital, Portsmouth; and the Royal Southern Hospital, Liverpool. Details of the patients treated are as follows:—

	Newcastle.	Sunderland.	Liverpool.	Portsmouth.	Greenwich.	Total.
(*a*) Number of persons dealt with during the year for the first time, and found to be suffering from:—						
Syphilis (males, 44; females, 9)..	48	2	1	..	2	53
Soft chancre (males, 2)..........	..	..	..	..	2	2
Gonorrhoea (males, 29, females, 4)	28	..	..	2	3	33
Non-venereal disease (males, 15, females, 8)................	19	1	..	..	3	23
(*b*) Total number of attendances at the out-patient clinics..............	817	55	30	11	157	1,070
(*c*) Aggregate number of "in-patient" days	76	..	..	..	122	198
(*d*) Number of doses of salvarsan substitutes given in the—						
1. Out-patient clinics	214	22	..	..	3	239
2. In-patient departments	10	..	..	..	..	10

Miscellaneous.

Section 1 of the Venereal Diseases Act, 1917, was made applicable to the County Borough of South Shields as from 1st January, 1921, by the Order of the Ministry of Health, dated 15th October, 1920. (The Venereal Diseases (Cumberland, etc.) Order, 1920.)

In accordance with the Ministry's circulars 114 and 115, notification was sent to the Tyne Port Sanitary Authority indicating the facilities provided by the Council, and a quantity of literature on the subject of venereal diseases was sent to the local secretary of the Seamen's National Insurance Society for distribution to the members.

Posters, giving details of the arrangements made for treatment and hours of attendance at the clinic were exhibited in suitable places, and many large firms kindly allowed posters to be displayed in their works.

MATERNITY AND CHILD WELFARE.

Notification of Births.

The number of births reported to the Health Department during 1920 was 3,908, as under :—

(*a*) Notified under the Notification of Births Acts, 1907 and 1915 :—		
by midwives	2,047	
by doctors	617	
by relatives and others	210	
		2,874
(*b*) Reported by local Registrar— (not previously notified)		1,034
Total		3,908

This total is exclusive of 123 still-births (21 notified by doctors, 96 by midwives, and 6 by relatives).

There was a slight improvement in the notification of births during the year. Public attention was called to the provisions of the Notification of Births Acts, 1907 and 1915, by notice in the press.

The still-births notified amounted to 3.2 per cent. of the total births; as against 2.6 per cent. for 1919.

On enquiry from the Superintendents of the local cemeteries, I am informed that there were 151 interments of still-born children. The percentage of still-births notified therefore was high—81 per cent.

Infant Mortality.

Number of deaths during 1920 among infants under 1 year	479
Infant mortality rate	121
Infant mortality rate in illegitimate infants	260

The principal causes of death were :—

Premature birth	109
Debility	43
Malformation, atelectasis and injury	24
Bronchitis	81
Pneumonia	62
Gastro-intestinal disorders	62
Convulsions	44
Syphilis	12
Whooping Cough	11

It will be seen that prematurity, debility, malformation, etc., accounted for 176 or 37 per cent. of the deaths. Many of these are due to antenatal causes, and it is to be hoped that as the antenatal work of the maternity and child welfare scheme is developed a substantial reduction in their number will be achieved.

143 deaths occurred from diseases of the chest. Having regard to the exposed position of the Borough, the low mean temperature and the overcrowded conditions under which many people live, the mortality from pulmonary disorders is not surprising.

Of the 479 infants who died under 1 year, 196 died before reaching the age of a month, and of these 113 in the first week of life.

The tables 9 and 10 show in detail the causes of death and the ages at death of infants under one year during the *ten* years 1911—1920. The deaths from prematurity, debility, malformation, etc., number 1,540 or 37 per cent. of the total, while bronchitis and pneumonia caused 966 or 23 per cent. of the total infant mortality.

As regards the ward distribution of the infant deaths for the last 10 years, it will be seen that, generally speaking, the infant mortality is smallest in the least overcrowded wards. The most overcrowded ward in the Borough with its 47 houses and 197 people to the acre has the highest average rate.

Deaths of Mothers during Labour and Puerperium.

12 deaths occurred from the following causes :—

Puerperal fever	3
Puerperal haemorrhage	2
Puerperal embolism	2
Abortion	1
Ectopic gestation	1
Puerperal nephritis..................	1
Puerperal convulsions	1
Puerperal disease of breast	1

The maternal mortality is therefore 3.1 per 1,000 births. The rate for England and Wales for the year was 4.3.

Inspection of Midwives and Administration of the Midwives Acts, 1902 and 1918.

At the end of 1919 there were 15 midwives in the Borough ; all were practising independently of any association, hospital, or voluntary agency. Of these, 12 were trained and 3 untrained. During 1920 three trained midwives commenced duty, including one who acted as a locum tenens. One left the district, and one was removed from the Midwives Roll, as explained below. This left at the end of 1920, 16 practising midwives in the Borough, of whom three were untrained.

The total number of cases attended by midwives during the year was 2,361, or over 60 per cent. of the total births. The inspector of midwives paid 105 visits of inspection to midwives during the year. The number of interviews at the Health Department was 9. A visit of inspection is paid at least once a quarter, and more frequently as occasion demands it. Instruction and advice are given as the necessity arises.

I have to record a progressive improvement in the keeping of records, notifications, etc., on the part of the midwives during the year.

One midwife was suspended from practice for a short period to allow of disinfection, etc., two cases of puerperal fever having occurred among her patients.

Three of the local midwives were reported to the Central Midwives Board by the local supervising authority for breaches of the rules. Two of the offenders were placed upon probation for six months ,two reports from the inspector of midwives being called for in each case. At the end of the probation period their certificates were returned to them. In the other case the midwife was cautioned by the Board. The offences proved were neglecting to send for medical help in cases of emergency—in connection with infants suffering from inflammation or discharge from the eyes ; and the proceedings against the midwives had a most salutary effect not only upon the offenders but upon other midwives as well. This is evidenced by the fact that 456 notifications of sending for medical help were received during 1920 as compared with 290 in 1919.

A fourth midwife practising in the town, but residing in another district, was reported by the Durham County Council for an offence in connection with a patient in the County area. She was removed from the Roll.

In such cases the procedure of the Board might be altered so as to allow of a local enquiry into offences against the rules, and thus save the time and expense of witnesses attending a meeting of the Board in London.

Co-operation between the midwives themselves and between the midwives and Health Department is promoted by the South Shields Nurse-Midwives Society. Lectures are given at the society meetings on subjects of interest to the members by the Health Department staff and others.

Notifications from Midwives.

The following notifications from midwives were received during 1920 in accordance with the rules of the Central Midwives Board :—

Sending for medical help (463 causes) ..	456
Still-births..........................	58
Deaths of infants....................	11
Deaths of mothers	1
Artificial feeding	29
Infectious cases	1
Laying out dead body	—
Intention to practice	18

The number of still-births reported under the rules differs from the total number of still-births notified under the Notification of Births Acts, since, under the Central Midwives Board's rules, a midwife is not bound to report if a doctor is in attendance at the time of birth. Most midwives call in a doctor for still-births, although they are not required by the rules to do so.

The reasons assigned by midwives for the calling in of medical help were very varied, and included, besides other conditions, practically all the emergencies as laid down in the rules. In 305 cases the emergency was in some way connected with maternal conditions, the principal causes being :—

Instrumental assistance for prolonged or difficult labour, malpresentations, etc.	115
Still-births	61
Abortion, miscarriage and premature birth......	21
Torn or ruptured perineum	20
" Haemorrhage "	15

In 158 cases help was required for some abnormality of the child. The chief conditions were :—

Injuries or deformities	16
Feebleness or weakness	50
Inflammation of or discharge from eyes	65

The doctor who was called in the emergency sent his account to the local supervising authority in 46 instances as against 13 in 1919. The total amount of fees claimed was £93 3s. 6d. The authority decided to recover from the patient or her husband, or the person responsible for her maintenance £42 19s. 0d. (23 cases). The amount actually recovered at the end of the year was £15 10s. 0d.

In each case in which the doctor claims his fee, careful enquiries are made into the financial circumstances of the person liable, and the statement as to income is verified by reference to the employers, who, as a rule, are most willing to give the information asked.

Municipal Infant Welfare Centre.

The centre was established in 1913.

Staff.—In October, 1920, Dr. Dorothy O. S. Blair, was appointed Maternity and Child Welfare Medical Officer, devoting half her time to Maternity and Child Welfare and the remainder to School Medical Inspection. Prior to that any case which required advice was referred to me.

Infant consultations are held every afternoon, except Saturdays, Dr. Blair, the Inspector of Midwives (Nurse Errington), and one of the Health Visitors (Mrs. Leete) being in attendance. It has not yet been possible to set apart any definite afternoon for antenatal work. Expectant mothers attend during the infant consultation. In addition there are seven other Health Visitors, each in charge of a district of the Borough, and each devotes approximately three-sevenths of her time to maternity and child welfare work.

Premises.—The work is carried on in the Health Department' Town Hall. The part of the building allocated is used for the purposes of school clinics in the mornings, and for infant and other consultations every afternoon (except Saturdays). The premises consist of a waiting room, a large room in which the children are weighed, etc., and a room in which Dr. Blair sees the infants and mothers. The premises are not very suitable for the purpose, the waiting room is rather dark and draughty, and the room used by Dr. Blair is also used as an X-ray room, and contains a good deal of electrical apparatus. When the scheme was started the premises were quite sufficient, but the work has developed so much that it has outgrown the premises. It is probably not practicable at present to obtain more convenient accommodation, but as soon as this can be done, other rooms ought to be acquired. The congestion in the present clinic seriously handicaps the work. The following is a report made to me by Dr. Blair on the work of the clinic.

Scope of Work.—As soon as practicable after the receipt of a notification of a birth a visit is made to the home by the Health Visitor of the district. The necessary enquiries are made and recorded on the infant birth card. Any advice which may be competent for the Health Visitor to give is given, such advice includes the clothing and feeding of the infant, hours of sleep, fresh air, etc. In the case of illness medical advice is always recommended.

The Health Visitors also make enquiry into still-births and all infant deaths, and the results of such enquiry are recorded. Occasionally a breach of the Central Midwives Board's rules on the part of the midwife comes to the Visitor's knowledge, and this is in due course reported to the Medical Officer of Health.

During 1920 the visits paid to the homes of infants by the Health Visitors were as follows :—

1st visits (after notification of birth)	4,134
Subsequent visits.........................	10,269
Visits to expectant mothers	341

Included in these figures are 2,330 visits made to the homes of babies attending the clinic to see that instructions obtained there are being properly followed, and to give any further assistance which may be required. Special attention is paid to those mothers who appeared to be careless or neglectful of their homes or infants.

508 visits were paid in connection with infant deaths and 122 in connection with still-births.

From the reports of the Health Visitors it is found that 93 per cent. of the infants are breast-fed.

In addition many visits are paid to children under five years in connection with cases of measles, whooping cough, tuberculosis, etc., and with reference to applications for milk.

Work of the Infant Clinic.

Infants.—All new cases are weighed at the baby clinic and the weight recorded with other particulars on a card. A duplicate of the weight card is given to the mother who can therefore keep herself informed of the progress of the infant. The child is then referred to me for examination. Any notes I may have to make are made on the card.

The mothers usually make subsequent visits to the clinic every week, and any case which does not appear to be progressing satisfactorily is referred to me. The children are seen by me every month during the first six months and thereafter at longer intervals.

Antenatal.—The midwives are encouraged to send their patients to the clinic before baby is born so that they may be advised as to the hygiene of pregnancy. Nursing mothers when attending with their infants are advised on the various problems of infant welfare and of their own well-being.

TREATMENT.—Mothers and babies who require treatment for any condition, other than some very minor ailment, are not treated at the clinic but are referred to their own doctor. It frequently happens that for minor ailments the family doctor is not consulted, hence the advisability of treating such conditions at the clinic. At the same time, however, treatment is kept as far as possible at a minimum, since it is recognised that the proper function of a clinic is the maintenance of the good health of mothers and infants. There are a few diseases which by reason of the prolonged treatment necessary for their cure ought properly to be undertaken. These are ophthalmia neonatorum and discharging ears. In many cases the parents cannot afford to pay for the long course of necessary treatment, and attempt to treat such conditions at home frequently with disastrous results. Venereal disease in infants may also, on occasion, have to be treated at the centre.

The following is a summary of the visits paid to the Infant Welfare Centre by mothers and infants during the year. There has been, as will be seen from the table, a great increase on the numbers for 1919 :—

	1920.	1919.
Number of mothers on register	995	766
Number of infants on register	995	766
Attendances of mothers	6,002	4,412
Attendances of infants	5,996	4,359
Visits of expectant mothers	61	48
Average weekly attendances (mothers)	115	85
Average weekly attendances (infants)	115	84

Supply of Milk.

Under the Local Authorities, Milk (Mothers and Children) Order, 1919, and the Milk (Mothers and Children) Order, 1919, local authorities upon whom is imposed the duty of administering the Maternity and Child Welfare Act, 1918, are empowered to supply milk for nursing and expectant mothers and for children under 5 years of age, at or below cost price to those unable to pay current retail prices and to necessitous cases. During 1920, 23,106 lbs. of dried milk were sold at about cost price, and 4,269 lbs. were given free. 711 gallons of fresh milk were given free. The dried milk is distributed from the clinic. The fresh milk is supplied by orders on the milkshop or dairy at which the applicants usually deal.

Enquiries are made into the financial circumstances of the applicants for free milk or milk below cost price, and every care is taken to ensure that only those for whom the provision is intended shall be allowed to take advantage of it. There can be no doubt that this is a wise if somewhat expensive provision for the welfare of children of those parents who are unable to provide a supply of this wholesome food, but a good deal of the time of the Health Visitors is taken up in making enquiries, etc., when they might devote it to other purposes.

Unless very elaborate precautions are taken certain abuses of the privilege are liable to occur.

Maternity Homes and Hospitals.

There are no maternity homes or hospitals in the Borough, other than two homes of midwives who take a few paying patients. The need for a maternity hospital is very great.

Incidence of Certain Diseases.

OPHTHALMIA NEONATORUM.

There were 50 cases of this condition notified during 1920, 18 by doctors, 27 by midwives, and 5 by both doctors and midwives. In November, the Council, on the advice of the Medical Officer of Health, issued a solution of colloidal silver to each midwife in the Borough with instructions as to its use, and a suggestion that it might be used at every birth. The solution is supplied in a dropper bottle which will be re-filled at the Health Department free of charge when necessary.

Of the 50 notified cases, 38 had both eyes affected ; of these 37 were found to have recovered early in 1921 and one was blind. 7 had only one eye affected ; all have recovered without apparent loss of sight. Of the remaining 5, 3 died soon after birth, and 2 left the town. In connexion with the child who became blind, a report was made to the Central Midwives'Board on account of the failure of the midwife to send for medical help. The action taken had a most salutary effect as will be seen from the increase in the number of cases in which medical help was called in.

PUERPERAL FEVER.

Four cases were notified during the year, two about the same time in the practice of a midwife, who was suspended for a period to allow of disinfection. Three deaths occurred from the disease ; two of the notified cases and one in the Harton Hospital, which is outside the Borough.

POLIOMYELITIS.

No cases of this disease occurred during the year.

MEASLES.

A considerable number of cases of measles occurred in 1920. As soon as possible after becoming aware of the occurrence of a case a visit was paid to the home of the child by a Health Visitor, who pointed out the necessity of medical attention, and advised as to isolation, ventilation, nursing, etc.

There were no deaths from measles during the year. It is reasonable to think that home visiting by experienced visitors has contributed to this.

WHOOPING COUGH.

Cases of whooping cough are visited in the same way.

DIARRHOEA.

Reference is made to this disease in the section of the report dealing with infectious diseases. Unfortunately there is no hospital in the Borough to which cases of this disease can be sent; the treatment of the disease as well as the prevention of its spread is a most difficult matter in many of the homes in the Borough on account of the prevailing overcrowding.

There were 67 deaths from diarrhoea and enteritis among children under 2 years during the year. This represents a mortality of 17 per 1,000 births.

Co-ordination of Work with the School Medical Service.

The two services are co-ordinated inasmuch as they are both under the administrative supervision of the Medical Officer of Health. The clinical officer for Maternity and Child Welfare devotes half her time to school medical work, and the Health Visitors devote a definite proportion of their time to the two branches. The records of infants who have passed through the centre are available to the school medical officers.

The Work of Voluntary Agencies.

A very important part of the Maternity and Child Welfare Scheme is that which is undertaken by the South Shields Public Health Society. A sub-committee of the Society undertakes the organisation of Baby Week each year. During July, 1920, a very successful Baby Week was held, and included a baby show in which a large number of children were exhibited and numerous prizes were given to the best babies in several classes. In the judging due regard was given to the evidence of care bestowed on the child. An exhibition was open the whole week at which lectures were given to the public on matters relating to infant hygiene. During the same week the Annual Durham County Conference on Maternity and Child Welfare was held in South Shields, representatives from all the local authorities and voluntary agencies in the County were present.

Another Sub-Committee of the Public Health Society undertakes the teaching of some branches of mothercraft. Two sessions are held each month. The work includes the cutting-out and making of baby clothes from new and part-worn materials. At certain sessions talks are given to the mothers who attend.

SCHOOL MEDICAL SERVICE.

(A) STAFF.

The staff for the medical inspection and treatment of school children consisted until September of the Principal School Medical Officer, one Assistant School Medical Officer, Dr. Wear ; a part-time Operating Surgeon, Dr. Crosby ; and a part-time Dentist, Mr. Diack ; and seven Health Visitors, each of whom devoted a portion of her time to school work. In October, an additional Assistant Medical Officer, Dr. Dorothy O. S. Blair, was appointed, part of her time to be given to school work and part to work in connection with the Council's Maternity and Child Welfare scheme. In November an additional Health Visitor was appointed, and as a result of a re-arrangement of duties the total time devoted by the Health Visitors to school work corresponded to the full time services of three nurses.

(B) CO-ORDINATION WITH OTHER MEDICAL SERVICES.

The work of the school medical service is co-ordinated with that of infant and child welfare inasmuch as a woman Medical Officer is engaged in both services, and in connection with school work is more especially concerned in the routine examination of infants and girls. The duties of the Health Visitors also include both branches. The records pertaining to the work of infant and child welfare are readily available for use in connection with school work.

(C) THE SCHOOL MEDICAL SERVICE IN RELATION TO PUBLIC ELEMENTARY SCHOOLS.

School Hygiene.

As regards *sites*, the schools in the Borough generally are well situated. One (Simonside) is in a somewhat exposed position, and during the winter it is often inadvisable to allow the children out of doors for recreation ; another school (Cone Street) stands near to an iron foundry, and some unpleasantness is created, especially when the wind is in a certain direction.

Ventilation.—The more modern of the elementary schools are ventilated by the plenum system. In the older schools natural ventilation by windows is the usual method. The only objection to the latter system is that occasionally the windows may not be kept sufficiently open, although on the teachers' attention being called to any default in this respect the remedy was at once applied.

Heating.—In all except the oldest schools central heating is installed. As a result of the war, the boilers in several of the schools required repair ; this led for a time to a temporary breakdown in the heating arrangements in certain schools. The repairs have now been carried out.

Lighting.—The lighting in most of the elementary schools is satisfactory, the desks being arranged so that the light falls over the left shoulder.

Desks and Blackboards.—The desks are of the dual standard type. Very few of the old long type of desk remain in the schools and those that are in use are being rapidly replaced by the more modern dual type. In the infant schools the desks are flat, and in some cases the younger children are provided with small chairs and tables. This is an admirable arrangement, permitting, as it does, of easy rearrangement of a class, and of comfort in out-of-door classes. The condition of the blackboards is on the whole satisfactory. Care appears to have been taken to prevent blackboards which have become " shiny " from being used.

Sanitary Conveniences and Lavatories.—The water carriage system is installed in every school, and with few exceptions separate water-closets are provided. There are lavatory basins in each department. There is sufficient w.c. and lavatory accommodation.

Drying Rooms—No drying rooms have been provided.

Cleanliness of Schools.—On the whole the schools are kept in a clean condition. It has not been possible to have them all thoroughly cleaned and painted, work which necessarily fell into abeyance during the war, but in most of the schools this has been remedied, and work on the remainder is proceeding.

Medical Inspection.

The following is a report made to me by Dr. Wear.

There were 22,577 children on the registers of the public elementary schools in the Borough at the end of 1920. The average attendance for the year was 20,159. There are 23 elementary schools (including Westoe Central School) comprising 53 departments.

42 departments were visited for the purpose of routine medical inspection, and 5,409 children in elementary schools were inspected during the year, viz. :—

Entrants	1,169
Intermediates	825
Leavers	3,415
	5,409

In addition there were 6,130 children specially inspected and 3,115 children were re-examined.

The total number of individual children inspected by the School Medical Officers during the year was 11,330.

The special cases were those children who were referred to the School Medical Officers by the Head Teachers or School Attendance Officers or by the Health Visitors as a result of their visits to the school, as well as those children who were brought to the clinic by their parents, and those sent by other agencies.

These figures in greater detail, together with the number of children examined in Higher Schools are given in the attached tables. (See pages 65 to 68.)

103 children whose examination had been arranged for were absent when the inspections took place ; of this number, 25 were examined by the Assistant Medical Officers during the school holidays.

The medical inspection schedule of the Board of Education was rigidly adhered to throughout the year.

In order to secure early ascertainment of crippling defects, Head Teachers were asked to render a return of all children known to them to be suffering from such defects, and the School Attendance Officers also co-operated. In addition, a good many cases are brought to the notice of the School Medical Officer by medical practitioners and parents. The tuberculosis register and other records also furnish details of certain other cases.

As in former years the disturbance of school arrangements during routine medical inspection was minimised as much as possible. Five children were taken from their class at a time and returned to class when their examination was completed. The period for undressing, inspection and dressing was less than half-an-hour. In the larger schools it was possible to have a room allocated for the purpose of inspection ; in others, the Head Teachers arranged for the use of their own rooms, and in smaller schools it was found necessary to devote a classroom for the inspection, two classes being conducted in another classroom for the time being.

Findings of Medical Inspection.

Uncleanliness.—A true picture as regards uncleanliness is not obtained in the course of routine medical inspection since the children are specially prepared for the occasion. The infants as a class appeared to be well cared for. The senior girls were more careful than the boys, although nits were more commonly found in the hair of the girls. At routine inspection 276 children, or 5 per cent., were dirty, of whom 130 were girls. 505 had nits in the hair. 9 (0.2 per cent.) cases of pediculosis of the body, and 23 (0.4 per cent.) cases of pediculosis of the head were found. At special inspections 14 cases of uncleanliness were discovered. Towards the end of the year arrangements were made for the complete survey of the schools by the nurses, but it was not found possible to commence the scheme before December 31st.

Minor Ailments.—Under this heading there were found minor digestive troubles, constipation, and parasites, sprains, bruises, lacerations, and abscesses, chilblains and synovitis and ganglion. These constituted the bulk of minor ailments other than skin diseases and visual defects.

Tonsils and Adenoids.—The following were the numbers found suffering from these conditions :—

	At Routine Medical Inspections.	At Special Inspections.
Enlarged tonsils	297	109
Adenoids	115	111
Enlarged tonsils and adenoids	41	144

It was usual to find that children suffering from adenoids were bronchitic, and in many cases they had more or less deformed chests. Three types of enlarged tonsils were noted (*a*) hypertrophy with practically no symptoms, (*b*) enlargement during an attack of tonsillitis with resolution as the attack subsided, (*c*) slight swelling of the tonsils with much enlargement of the cervical glands.

Tuberculosis.—All children suffering from or suspected to be suffering from this disease were referred to the Tuberculosis Officer, with whose department the closest co-operation exists. At routine medical inspection 19 children were found to have pulmonary, and 51 to have non-pulmonary tuberculosis, while at special examinations 76 had pulmonary and 82 non-pulmonary types of the disease.

Skin Disease—It will be seen from the tables that much larger numbers of children were found at special inspections to be suffering from skin diseases than at routine examinations. This can be accounted for by the fact that many cases are sent by teachers, parents, and others, to the special inspection clinic for treatment. Impetigo and scabies continue to account for the majority of cases. There appeared to be a slight reduction in the number of cases of scabies as compared with the previous year.

External Eye Disease : Blepharitis.—156 children were found to be suffering from this disease (56 at routine and 100 at special inspections). The seriousness of this unsightly condition does not appear to be considered by certain parents and its neglect frequently results in the permanent loss of the eyelashes. *Conjunctivitis*: 30 cases of this condition were found at routine inspections while 186 were found at special inspections. The type met with during the year appeared to be very infectious, spreading quickly to other children. It was noted that certain children with visual defects attributed their condition to a former attack of conjunctivitis. *Corneal Ulcer*: Two cases were discovered at routine and 45 at special inspections, while there were also 18 cases of corneal opacities.

Defective Vision.—89 cases of strabismus were found. It was noted that as regards this condition in many cases irreparable damage had been done to the affected eye before the parents sought advice. 822 children with defective vision were discovered (473 at routine and 349 at special inspections). Some difficulty was experienced in testing the vision of certain children in the intermediate group on account of their being doubtful of the letters on Snellen's test cards.

Ear Diseases and Hearing.—39 children had defective hearing the commonest causes being chronic otitis media associated with adenoids. Ear diseases included furunculosis of the meatus, cerumen and foreign body in the ear.

Dental Defects.—The School Dental Surgeon inspected 1,720 children (1,459 at routine dental inspections and 261 at special inspections). He devoted two sessions of three hours each to this work (including treatment). Apart from this, 2,030 children were found on routine medical inspection to have dental defects.

It was noted that in spite of the work of the School Medical Officers, Dentist and Teachers, very little care is taken of the teeth. The use of the toothbrush is greatly neglected and the teeth of many children show signs of decay, with consequent foul breath, alveolar abscess, dyspepsia and anaemia. On enquiry it was found that most of the children possessed toothbrushes.

Crippling defects.—The commonest causes of crippling were tuberculosis (spine and hip), congenital deformities, rickets, deformities due to a former infantile paralysis and those due to accidents.

Other Conditions.—Among other conditions found were 79 affections of the heart and circulation; 21 of these were due to organic disease, and 58 were functional disorders. 502 children suffered from varying degrees of anaemia. 653 children were found to have respiratory diseases other than tuberculosis; 38 had diseases of the nervous system, 11 of whom had epilepsy, and

17 chorea ; while 66 suffered from disturbance of the digestive tract and intestinal parasites.

325 children were found to have enlarged cervical glands which did not appear to be tuberculous. Many of these enlargements are undoubtedly due to such conditions as impetigo of the scalp, otitis media, chronic infections of the tonsils and other septic conditions of the head and neck.

Previous Infectious Fevers.—Of the total number of children examined at routine medical inspection :—

3,594 or 66 per cent. had had measles.
1,306 ,, 24 ,, ,, whooping cough.
747 ,, 14 ,, ,, chickenpox.
595 ,, 11 ,, ,, scarlet fever.
59 ,, 1 ,, ,, diphtheria.

Vaccination.—Of the 5,409 children examined at routine medical inspection, 1,466 or 27 per cent. were unvaccinated.

Infectious Diseases.

The Head Teachers are obliged to render a return to the Medical Officer of Health each week of the number of cases of infectious disease occurring in each class, in addition to reporting (as they become aware of the cases) the names and addresses of all children suffering from or suspected to be suffering from infectious disease. On receipt of such information a Health Visitor or Sanitary Inspector pays a visit to the home of the child, and enquires as to isolation, contacts, etc.

Regulations governing the system of notification by the Head Teachers were made by the Local Education Authority some years ago, and have been amended from time to time. They indicate the normal incubation periods and prescribe the periods of exclusion for patients and contacts, and give details of the symptoms of the common infectious diseases.

The Medical Officer notifies each Head Teacher of the occurrence of any notifiable infectious disease in the home of a school child and indicates the date on which the patient or contact may be allowed to return to school.

The co-operation between the Public Health Department and the teachers is close, and a very complete control over infectious disease can be maintained. When it appears that there is a considerable number of cases of infectious diseases in a school or class, a visit is paid to the school by one of the Medical Officers, and investigations as to the cause and spread are carried out. Two visits of this nature were paid to the schools during the year, one in connection with the occurrence of scarlet fever, and the other as the result of a number of cases of whooping cough and mumps appearing in an infants' department.

School closure for infectious disease was not resorted to during the year.

Following Up.

The School Medical Officer informs parents verbally or by letter of any defect formed on inspection and of the necessity for appropriate treatment. Many of the children avail themselves of the treatment offered at the clinics, but where treatment is otherwise indicated, the Health Visitor, in her capacity as School Nurse, visits the home of the child to enquire if treatment has been obtained. In the few instances in which there appears to have been persistent neglect in this respect, a report is made to the Local Education Authority. Only one case was reported during the year.

Medical Treatment.

Details of treatment and result are shown in Tables IV. and V. (pages 71 and 73). The total number of children treated at the general clinics during the year was 2,760. The number of attendances was 12,411. General clinics for the treatment of minor ailments, visual defects, skin diseases, etc., are held three mornings each week in the Public Health Department, Town Hall. The number of attendances was usually between 80 and 100 each session ; the attendances were, as a rule, larger after the school holidays. The waiting-room and treatment-room accommodation was at times inadequate.

A Medical Officer and two Health Visitors were in attendance at the clinics.

Children are sent to the clinics by Head Teachers, Health Visitors, and Attendance Officers, in addition to those sent as a result of routine inspection by the School Medical Officers. In many instances children are brought by their parents, a proceeding which ought to be encouraged, since it indicates increasing interest on the part of the parents in seeking advice for minor ailments which might otherwise remain untreated.

Minor Ailments.—Only ailments of a minor character were treated and without having recourse to drugs, except that Syrup Ferri Phosph. was dispensed to a number of children.

Tonsils and Adenoids.—A separate surgical clinic is devoted to the surgical treatment of tonsils and adenoids in charge of a part-time Operating Surgeon. Until October, sessions were held once a fortnight, but after that date the Local Education Authority arranged for a session once a week. Six or seven cases are treated in each session. The arrangements at the clinic are admirable; there is adequate waiting-room accommodation, a well-appointed operating theatre and a recovery room containing four beds, where, if necessary, cases could be kept overnight with a nurse in attendance. The number of cases treated was as follows:—

Both tonsils removed	60	children.
Adenoids and both tonsils removed	55	,,
Adenoids and one tonsil removed ..	54	,,

Tuberculosis.—The co-operation between the school medical service, and the Tuberculosis Officer is close. Any child suffering from or suspected to be suffering from tuberculosis is referred for treatment or diagnosis to the Tuberculosis Officer, and on his advice tuberculous children are excluded from school or otherwise. 325 children under 16 years of age were treated at the tuberculosis clinic. Of these 197 suffered from pulmonary, and 128 from non-pulmonary types of the disease. 99 children were admitted to treatment during the year, of whom 65 were pulmonary and 34 non-pulmonary cases.

A number of cases of tuberculosis of the skin were treated by the Ultra Violet Rays (mercury vapour lamp). The results appear to be disappointing. Very prolonged treatment is necessary.

Skin Diseases: Ringworm.—At the end of 1919 an X-Ray installation was purchased, but on account of some difficulty in obtaining certain essential fittings it was not found possible to use the apparatus until September, 1920. One morning session each week is devoted to the treatment of ringworm of the scalp. The results have been very encouraging. At a rule a child with ringworm can return to school in a month or less, instead of being excluded from school for periods of from 8 weeks to 3 months.

Before treatment is commenced the parents' consent is obtained, the parents signing a form requesting treatment by this method. The usual exposure is given and regulated by Sabouraud's method, and where the disease is extensive the Adamson-Kienboeck method for the epilation of the complete scalp is carried out. After exposure, detailed instructions as to the subsequent treatment and prevention of spread is given to the parents, and the children attend once a week in order that supervision may be exercised to see that the instructions are being carried out

52 cases of ringworm of the scalp and 65 cases of ringworm of the body were treated during the year.

255 cases of scabies were treated, including 21 cases treated as in-patients at the Deans Hospital.

Impetigo contagiosa was prevalent among school children. Neglect of this condition is often the cause of prolonged absence from school. 655 children were treated for this disease.

External Eye Diseases.—391 children were treated for external eye disease, principally blepharitis and conjunctivitis.

Vision.—Since September one eye clinic (and frequently two) was held each week. Prior to that date it was only possible to have two or three sessions a month. The commonest visual defects were hypermetropia and hypermetropic astigmatism. Mixed astigmatism was comparatively rare. Several cases of nystagmus were met with. It appeared that spectacles were unsatisfactory in these cases, even in cases aggravated by errors of refraction.

Number of cases of refraction done	378
,, ,, in which spectacles were prescribed	324
,, prescriptions given	324

Spectacles were supplied free of charge to 95 children. The parents of the remaining children contributed all or part of the cost of their spectacles. Children for whom glasses were prescribed returned to the clinic when the glasses were supplied, and were again examined at the end of six months.

Ear Disease and Hearing.—Otitis media was the principal ear disease treated at the clinic. Parents in some cases do not seem to realise the necessity for prompt treatment for this condition. Many cases proved to be very intractable.

Dental Defects—A well equipped dental clinic is established in the same building as the surgical clinic, and comprises ample surgery and waiting-room accommodation. A part-time Dental Surgeon gives two sessions a week to the inspection and treatment of children of from 6-8 years. During the past year 61 sessions were devoted to treatment. 638 children were referred for treatment as a result of routine dental inspection, of which number 288 were treated. Conservative dentistry was carried out, but a number of extractions were done, including 261 urgent cases sent to the dental clinic by the School Medical Officer. General anaesthesia was required in a number of cases, of whom 23 had nitrous oxide gas,and 1 had chloroform.

Crippling Defects and Orthopedics.—Apart from tuberculosis, most of the crippled children suffered from the effects of a former attack of acute anterior poliomyelitis. Many of the cases had been provided with the usual caliper irons for the legs, and in many electrical and other treatment had been tried. In some cases the shortening and atrophy of the limbs had not been corrected with the consequent accentuation of crippling.

Cleansing of Verminous Children.—A cleansing station is provided with facilities for bathing, and for the disinfestation of clothing.

32 final notices were sent to parents who allowed their children to become verminous. 5 children were subsequently compulsorily cleansed.

There were no prosecutions during the year.

Open-Air Education.

The huts of a dismantled anti-aircraft station adjoining the Council's sanatorium site at Cleadon Park were purchased by the Local Education Authority for the purpose of providing an open-air school. The site is well protected and suitable, and is about 5 acres in extent. Accommodation will be available for class-rooms, teachers' room, kitchen and larder, and water-closet, lavatory and cloakroom accommodation ; as well as a caretaker's house and store rooms. Some alterations are required before the huts can be used as an open-air school. It is not proposed at present to provide residential facilities for the children. The accommodation will provide for about 100 children.

In many of the public elementary schools in the Borough, open-air classes are held in the summer months, and in one school open-air classrooms have been provided. An extension of this system would be of considerable benefit to many of the children.

Play centres have been opened at three schools. Sessions are held early in the evenings. Considerable improvement in the physique of the children has already been noticed. The advantages of the centres can hardly be over-estimated, and an extension of the system would prove a suitable boon, even if serving only to attract the children in the poorer districts from the streets, which are their only playground. The centres are most popular with the children ; those attending one at least were quite willing to forego recent holidays if the play centre could be kept open during the vacation.

Certain Head Teachers arranged school journeys to the delight and benefit of the children attending their departments. Towards the end of the year arrangements were being made for organising school journeys for the schools generally.

Boys Summer Camp School.—In June, 26 boys forming the " top " division of a school in the poorer part of the Borough were taken for a two weeks Summer Camp School at Haltwhistle, Northumberland.

The boys were accommodated in tents on an ideal site, and were under the care of the Head Teacher and two Assistant Teachers. The catering was carried out by a private firm. The boys were examined by the School Medical Officer and weighed prior to their going into camp. It was found that the boys gained in weight from 1 to 4½ lbs., except one boy, who lost nearly 2 lbs.

There can be no doubt as to the benefit to school children by such a scheme, especially to those children from the more overcrowded parts of the Borough. An extension of this branch of education should receive consideration.

Physical Training.

Periods of physical training are provided for in the school schedules, amounting to 60 minutes a week. An Organiser of physical training has not yet been appointed, and no arrangements for associating the school medical service with physical training in the schools have yet been made.

Provision of Meals.

Free meals are supplied to necessitous cases as occasion arises. The Head Teachers recommend children who appear to require them to the Superintendent Attendance Officer who, after the preliminary enquiries, arranges for the children's attendance at the National Kitchen, where meals of sufficient quantity and quality are provided. In December, on account of the closing down of a large works, many children attending one of the schools appeared to the School Medical Officer to be ill-fed. On his recommendation arrangements were made for the provision of breakfasts at the school.

During the year, the total number of children provided with free meals at the National Kitchen, Keppel Street, or at the school above-mentioned, was 32 ; total number of meals, 2,980 ; total cost, £70.

School Baths.

In one school in the poorest part of the Borough baths are provided, and when used were of considerable value. The children from the other schools attend the Corporation Swimming Baths every week (except in winter) under the care of the teachers. A Swimming Instructor has been appointed by the Local Education Authority. Swimming contests between the schools are very popular, and many children have become expert swimmers.

The attendances of school children at the baths numbered 16,136 during the year.

Co-operation of Parents

The parents of the children to be examined at routine inspections were notified by the Head Teacher, and they were invited to be present at the inspections, the date and time being stated in the notice. In the case of infants, as many as 95 per cent. of parents attended. As a rule, parents attended more frequently with their daughters than with their sons.

Of the total number of children inspected, parents attended in 2,957 or 54 per cent. of the cases. There was during the year one instance of objection by a parent to the medical examination of a scholar.

As regards their co-operation in the subsequent treatment of defects, the majority of parents are quite anxious when defects are pointed out to have them remedied ; in only a few cases pressure is required to ensure adequate treatment being obtained.

In the notifications to parents directing attention to the need of the child for treatment for obstruction of the nose and throat or for dental defects they are advised to consult the family doctor. They are also informed that if they are not in a position to obtain the treatment from a private doctor, it may be obtained at the School Clinic. If they desire treatment at the clinic, they are requested to sign the form, and if possible to get their doctor to sign it also. At the same time it is pointed out in the letter that treatment may be given free, but those who are in a position to contribute towards the cost of treatment will be expected to do so.

When the parents bring the children for treatment for nose and throat obstruction, or for dental defects, the school nurses in attendance at the clinic make enquiries, and endeavour to obtain payment in cases where it appears to them or the School Medical Officer that the parents can afford to contribute. The Attendance Officers also at times make certain investigations into financial circumstances.

In refraction work the School Medical Officer enquires as to the ability of the parents to pay for glasses which are supplied on his prescription by a local optician in accordance with a contract with the Education Authority.

As regards minor ailments : it is impossible with the large number of children who attend that thorough investigation of the circumstances can be made ; for such cases a collecting box is provided at the clinic. For these ailments (skin disease, etc.), it would not be advisable to insist on payment according to a scale, and the work of collecting would not be compensated for by the amount received.

A scale of charges for treatment at the school clinic was adopted in 1914. It was used as a guide, and is not rigidly insisted on, the Medical Officer having been authorised to vary the amounts according to the circumstances of the particular cases dealt with.

The contributions received during 1920 from parents towards the cost of treatment at the various clinics were as follows :—

	£	s.	d.
Eye Clinic	42	4	9
Surgical Clinic	31	2	0
Dental Clinic	12	13	11
General Clinic	13	7	10
	£99	8	6

Co-operation of Teachers.

I have to record my indebtedness to the Head Teachers for their co-operation. They are most obliging, and anxious to help often at inconvenience to themselves. Many defects found at routine examination are pointed out to the teachers who influence the parents in having them remedied. Very many children are sent by the teachers to the clinic for treatment or advice.

Co-operation of School Attendance Officers.

I am also indebted to the Superintendent Attendance Officer (Mr. Willits) for his co-operation, and that of his assistants. Very valuable help is given, particularly in the following-up of cases, and in securing their attendance at the clinic for treatment, defaulters in this respect being reported to the Superintendent Attendance Officer. Information regarding cripples and otherwise defective children is frequently obtained through the School Attendance Department, while the preliminary enquiries necessary for the admission of defective children to special schools are carried out by the Attendance Officers.

Co-operation of Voluntary Bodies.

Voluntary bodies do not necessarily enter into the work of routine medical inspection, but in other directions their assistance is very valuable.

National Society for the Prevention of Cruelty to Children.—Several cases of neglect were reported to the local Inspector of the National Society with good results in every case.

The Shoeless Children's Fund.—The Hon. Secretary, William Scott, Esq., O.B.E., reports that during 1920, 267 children received one pair of boots and stockings. Head Teachers recommend deserving cases for the consideration of the Committee. As occasion arises, the School Medical Officer also sends needy children whose footgear is inadequate.

Child's Care Committee.—The Ladies of this Committee of the South Shields Public Health Society investigated 133 cases, and paid 213 visits to the homes of children during the year. Among these were 36 cases of neglect, 42 of insufficient clothing and footgear, 25 skin disease cases, 24 cases of children who were delicate and 20 cases of other diseases. Several parcels of clothing were distributed to needy cases. The members also attended the surgical clinic and supplied tea and cakes to the mothers while waiting for their children's recovery after the removal of tonsils and adenoids. The members visit schools and follow-up any cases reported to them by the Head Teacher.

(D) BLIND, DEAF, DEFECTIVE, AND CRIPPLED CHILDREN.

Information regarding the great majority of these children has been obtained. The methods by which cases become known to the School Medical Officer, through Teachers, Health Visitors, Attendance Officers, and others, have already been indicated. It is improbable that there are numbers of such children in the Borough of whom details are unknown to the Local Education Authority.

Most of these cases are periodically examined by the School Medical Officer, but some difficulty is experienced in inducing parents to bring them to the clinic for examination, partly on account of a natural disinclination on the part of the parents to the exhibition of their children—this is especially noticeable in the case of mentally defectives—and partly to the fact that no tangible result of such examination is apparent to the parents.

There are no special schools for such children in the Borough, but the Local Education Authority contracts with special schools in other parts of the country.

In the examination of mentally defective children, Stanford's revision of the Binet Simon method has been adopted.

Table III. shows the numbers and disposition of blind, deaf, defective, and epileptic children in the Borough.

(E) SECONDARY SCHOOLS.

The general sanitation of both the higher schools in the Borough is satisfactory. Adequate sanitary conveniences and lavatory accommodation are provided.

The arrangements for routine medical inspection are similar to those for public elementary schools.

Routine medical inspection of secondary school children was commenced on July 5th, 1920.

The parents of the children were notified as in the case of elementary schools. 25 objections were made to the medical examination of scholars.

All children over 12 and " entrants " were examined, and the Board's schedule of medical inspection was strictly adhered to.

Similar arrangements exist for the control of infectious disease, following-up, and the details dealing with the co-operation of parents and teachers are substantially the same as for the elementary schools. 284 parents attended at the routine inspection, a proportion of 50.6 per cent.

There were 702 pupils on the registers of the two higher schools at the end of 1920. Of these 561 were medically examined. Of those inspected, 309 were defective in some respect. The number of defects found (other than dental defects and uncleanliness) was 382, and they are set out in detail in Table II.

With the limited experience of routine medical inspection in higher schools, it is not advisable to comment on the defects found, except to point out that the cases of uncleanliness were in the great majority of cases due to the presence of nits in the girls' heads.

As regards treatment, many of the parents of children attending higher schools are in a position to provide private medical attention. At the same time, the various treatment clinics provided by the Education Authority are available for those unable to afford treatment from private medical practitioners. Only one child from a higher school was treated during the year, and that for the removal of tonsils and adenoids.

(F) EMPLOYMENT OF CHILDREN AND YOUNG PERSONS.

Byelaws regulating the employment of children and young persons under the Employment of Children Act, 1903, and the Education Act, 1918, have been made by the Local Education Authority and approved by the Home Office. The byelaws indicate the prohibited employments and provide that no child under 12 years shall be employed, and that a child between 12 and 14 years if employed, shall only be employed during certain hours, and under certain conditions. Provision is made for the notification to the Local Education Authority by the employer of the names and addresses of children employed by him, and for the issue of "Employment Cards." Provision is also made for the medical examination of children employed before school hours, and requiring the employer to see that such children are supplied with adequate waterproof footwear and garments.

The byelaws also regulate street trading by young persons between 14 and 16 years, and provide for the issue of licences to such young persons.

At the end of the year the appointment of an officer to carry out the work was under consideration.

Details of the number of children in South Shields employed in occupations were given in the Annual Report for 1919.

The co-ordination of the work of the school medical service with that of the Juvenile Employment Committee is ensured by the fact that the School Medical Officer is a member of that committee. Arrangements have been made whereby the Secretary of the Juvenile Employment Committee may send any child about whom he requires advice to the school clinic.

(G) MISCELLANEOUS.

Examination of Pupil Teachers and Scholarship Candidates.

42 pupil teachers were examined during the year. Of these 12 had minor defects, and were re-examined 6 months later.

48 scholarship candidates were examined.

Lectures.

Eight lectures on hygiene were given by the School Medical Officer to the children of the two senior classes in certain schools.

Visits of School Nurses.

The Health Visitors in their capacity as School Nurses paid 1,715 visits to the schools in connection with routine medical inspection and cleanliness of school children, etc. 1,740 visits were paid to the homes of school children in connection with "following-up" in order to see that treatment prescribed at the clinic is properly carried out.

ELEMENTARY SCHOOLS.

TABLE I.—NUMBER OF CHILDREN INSPECTED 1st JAN., 1920, TO 31st DEC., 1920.

A.—ROUTINE MEDICAL INSPECTION.

Age.	Entrants.					
	3.	4.	5.	6.	Other Ages.	Total.
Boys	..	30	376	167	27	600
Girls	..	21	335	181	32	569
Totals	..	51	711	348	59	1,169

Age.	Inter-mediate Group.	Leavers.					Grand Total
	8.	12.	13.	14.	Other Ages.	Total	
Boys	477	299	1,220	439	36	1,994	3,071
Girls	348	313	831	256	21	1,421	2,338
Totals	825	612	2,051	695	57	3,415	5,409

B.—SPECIAL INSPECTIONS.

	Special Cases.	Re-examinations (*i.e.*, No. of Children re-examined).
Boys	2,915	1,369
Girls	3,215	1,746
Totals	6,130	3,115

C.—TOTAL NUMBER OF INDIVIDUAL CHILDREN INSPECTED BY THE MEDICAL OFFICER, WHETHER AS ROUTINE OR SPECIAL CASES (NO CHILD BEING COUNTED MORE THAN ONCE IN ONE YEAR.)

No. of Individual Children inspected.
11,330.

HIGHER SCHOOLS.

TABLE I.—NUMBER OF CHILDREN INSPECTED 1st JAN., 1920, TO 31st DEC., 1920.

A.—ROUTINE MEDICAL INSPECTION.

	Age.												
	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	Total
Boys ..	2	7	..	2	3	51	74	91	58	16	5	1	310
Girls ..	..	..	..	..	4	32	72	43	53	30	13	4	251
Totals	2	7	..	2	7	83	146	134	111	46	18	5	561

B.—SPECIAL INSPECTIONS.—Nil.

C.—TOTAL NUMBER OF INDIVIDUAL CHILDREN INSPECTED BY THE MEDICAL OFFICER—561.

ELEMENTARY AND HIGHER SCHOOLS.

TABLE II.—RETURN OF DEFECTS FOUND IN THE COURSE OF MEDICAL INSPECTION IN 1920.

Defect or Disease.		Routine Inspections.				Specials.	
		Number referred for treatment.		Number requiring to be kept under observation but not referred for treatment.		Number referred for treatment.	Number requiring to be kept under observation but not referred for treatment.
		El.	Hr.	El.	Hr.	Elementary.	
	Malnutrition	..	..	5	..	..	..
	Uncleanliness—						
	Head	33	..	495	69	13	..
	Body	50	..	235	..	1	..
Skin.	Ringworm—						
	Head	3	..	1	..	81	..
	Body	3	..	5	..	110	..
	Scabies	17	..	4	1	246	..
	Impetigo	16	..	45	..	645	..
	Other diseases (non-tuberculous)	23	..	71	6	462	..
Eye.	Blepharitis	17	..	39	1	100	..
	Conjunctivitis	5	..	25	..	186	..
	Keratitis	..	..	..	..	3	..
	Corneal ulcer	2	..	..	..	45	..
	Corneal opacities	3	..	8	..	7	..
	Defective vision	473	37	..	..	349	..
	Squint	53	..	27	..	9	..
	Other conditions	4	..	37	3	30	..
Ear.	Defective hearing	9	..	2	8	28	..
	Otitis media	39	..	45	..	164	..
	Other ear diseases	17	..	40	1	77	..
Nose & Throat	Enlarged tonsils	262	10	35	70	109	..
	Adenoids	61	4	54	13	111	..
	Enlarged tonsils & adenoids	41	2	..	..	144	..
	Other conditions	13	..	19	27	73	..
Enlarged cervical glands (non-tuberculous)		..	..	267	19	58	..
Defective speech		..	..	74	6	1	..
Heart & Circulation.	Heart Disease—						
	Organic	2	..	12	..	7	..
	Functional	4	..	48	2	6	..
	Anaemia	17	..	115	23	370	..
Lungs.	Bronchitis	11	..	362	20	179	..
	Other non-tubercular diseases	..	..	92	7	9	..

TABLE II.—CONTINUED.

Defect or Disease.		Routine Inspections.				Specials.	
		Number referred for treatment.		Number requiring to be kept under observation but not referred for treatment.		Number referred for treatment.	Number requiring to be kept under observation but not referred for treatment.
		El.	Hr.	El.	Hr.	Elementary.	
Tuberculosis.	Pulmonary—						
	Definite	9	..	10	1	76	..
	Suspected	11	..	..	..	2	..
	Non-pulmonary—						
	Glands	5	..	13	..	42	..
	Spine	..	..	..	..	1	
	Hip	2	..	..	..	1	..
	Other bones & joints	1	..	12	2	..	..
	Skin	1	..	..	..	2	..
	Other forms	2	..	15	..	36	..
Nervous System.	Epilepsy	..	..	4	..	7	..
	Chorea	1	..	5	..	11	..
	Other conditions	..	..	7	..	3	..
Deformities.	Rickets	3	..	34	3	3	..
	Spinal curvature	..	..	..	1	1	..
	Other forms	2	..	102	18	27	..
Other defects & diseases		35	..	330	28	330	..

NUMBER OF INDIVIDUAL CHILDREN having defects which required treatment or to be kept under observation :—

Elementary Schools	6,787
Higher Schools	309

El.—Elementary Schools. Hr.—Higher Schools

TABLE III.—NUMERICAL RETURN OF ALL EXCEPTIONAL CHILDREN IN THE AREA IN 1920.

			Boys.	Girls.	Total.
Blind (including partially blind within the meaning of the Elementary Education (Blind & Deaf Children) Act, 1893.		Attending public elementary schools	20	19	39
		Attending certified schools for the blind	6	5	11
		Not at school	3	1	4
Deaf and Dumb (including partially deaf) within the meaning of the Elementary Education (Blind & Deaf Children) Act, 1893.		Attending public elementary schools	9	18	27
		Attending certified schools for the deaf	6	11	17
		Not at school	4	1	5
Mentally Deficient.	Feeble-minded.	Attending public elementary schools	20	12	32
		Attending certified schools for mentally defective children	5	1	6
		Notified to the Local Control Authority by Local Education Authority during year	..	..	..
		Not at school	1	4	5
	Imbeciles.	At school	..	..	..
		Not at school	2	1	3
		Notified to Local Control Authority	..	..	..
	Idiots.	Notified to Local Control Authority	..	..	..
		Not at school	..	..	..
Epileptics.		Attending public elementary schools	4	5	9
		Attending certified schools for epileptics	..	..	..
		In institutions other than certified schools	..	..	..
		Not at school	2	2	4

TABLE III.—*Continued.*

			Boys.	Girls.	Total.
Physically Defective.	Pulmonary Tuberculosis	Attending public elementary schools	99	77	176
		Attending certified schools for physically defective children	..	..	..
		In institutions other than certified schools	4	1	5
		Not at school	55	47	102
	Crippling due to Tuberculosis	Attending public elementary schools	131	102	233
		Attending certified schools for physically defective children	..	..	..
		In institutions other than certified schools	4	1	5
		Not at school	25	32	57
	Crippling due to other causes than tuberculosis, *i.e.*, paralysis rickets, traumatism.	Attending public elementary schools	45	36	81
		Attending certified schools for physically defective children	4	..	4
		In institutions other than certified schools	..	..	..
		Not at school	2	1	3
	Other physically defectives *e.g.*, delicate and other children suitable for admission to Open-air schools, children suffering from severe heart disease	Attending public elementary schools	67	73	140
		Attending open-air schools	..	..	..
		Attending certified schools for physically defective children other than Open-air schools	..	..	..
		Not at school	13	17	30
Dull or backward *		Retarded 2 years	178	62	240
		Retarded 3 years	62	42	104

* Judged according to age and standard.

ELEMENTARY SCHOOLS.

TABLE IV.—TREATMENT OF DEFECTS OF CHILDREN DURING 1920.

A.—TREATMENT OF MINOR AILMENTS.

Disease or Defect.	Number of Children.			
	Referred for treatment.	Treated.		
		Under Local Education Authority's Scheme.	Otherwise	Total
SKIN—				
Ringworm: Head ..	84	52	28	80
Body ..	113	65	43	108
Scabies	263	255	8	263
Minor injuries	2	2	..	2
Impetigo	661	655	5	660
Other skin disease ..	485	477	6	483
EAR DISEASE	334	300	19	319
EYE DISEASE (external and other)	402	392	10	402
Miscellaneous	363	149	71	220

B.—TREATMENT OF VISUAL DEFECT.

Number of Children.									
Referred for Refraction.	Submitted to Refraction.				For whom glasses were prescribed.	For whom glasses were provided.	Recommended for treatment other than by glasses.	Received other forms of treatment.	For whom no treatment was considered necessary.
	Under L.E.A. Scheme Clinic or Hospital.	By Private Practitioner or Hospital.	Otherwise.	Total.					
831	378	6	1	385	331	331	5	4	50

TABLE IV.—*Continued.*

C.—TREATMENT OF DEFECTS OF NOSE AND THROAT.

Referred for treatment.	Number of Children.			
	Received operative treatment.			Received other forms of treatment.
	Under Local Education Authority's Scheme, Clinic, or Hospital.	By Private Practitioner or Hospital.	Total.	
814	169	62	231	234

D.—TREATMENT OF DENTAL DEFECTS.

1.—Number of Children dealt with.

	Age Groups.										"Specials."	Total.
	5	6	7	8	9	10	11	12	13	14		
(*a*) Inspected by dentist ..	..	543	771	145	..	..	..	..	..	..	261	1,720
(*b*) Referred for treatment	638										334	972
(*c*) Actually treated	288										334	622
(*d*) Re-treated (result of periodical examination)	..										..	..

2.—Particulars of time given and of operations undertaken.

No. of half-days devoted to inspection.	No. of half-days devoted to treatment.	Total number of attendances made by the children at the Clinic.	No. of Permanent Teeth.		No. of Temporary Teeth.		Total No. of Fillings.	No. of Administrations of General Anaesthetics included in 4 and 6.	No. of other Operations.	
			Extracted.	Filled.	Extracted.	Filled.			Permanent Teeth.	Temporary Teeth.
22	61	619	131	386	381	..	386	24	57	..

ELEMENTARY SCHOOLS.

TABLE V.—SUMMARY OF TREATMENT OF DEFECTS.

	Number of Children.			
	Referred for treatment.	Treated.		
		Under Local Education Authority's scheme.	Otherwise.	Total.
Minor ailments	2,707	2,347	190	2,537
Visual defects	884	378	16	394
Defects of nose & throat	814	241	224	465
Dental defects	972	549	73	622
Other defects	913	586	99	685
Total	6,290	4,101	602	4,703

ELEMENTARY AND HIGHER SCHOOLS.

TABLE VI.—SUMMARY RELATING TO CHILDREN MEDICALLY INSPECTED AT THE ROUTINE INSPECTIONS DURING THE YEAR 1920.

	Elem.	Higher.
(1) The total number of children medically inspected at the Routine Inspections	5,409	561
(2) The number of children in (1) suffering from defects (other than uncleanliness or defective clothing or footgear) who require to be kept under observation (but not referred for treatment)	1,964	254
(3) The number of children in (1) suffering from—		
Malnutrition	5	..
Skin disease	188	7
Defective vision (including squint)	553	37
Eye disease	140	4
Defective hearing	11	8
Ear disease	141	1
Nose and throat disease	485	126
Enlarged cervical glands (non-tuberculous)	267	19
Defective speech	74	6
Dental disease	2,030	246
Heart disease—		
Organic	14	..
Functional	52	2
Anaemia	132	23
Lung disease (non-tuberculous)	465	27
Tuberculosis—		
Pulmonary: definite	19	1
suspected	11	..
Non-pulmonary	51	2
Disease of the nervous system	17	..
Deformities	141	22
Other defects and diseases	365	28
(4) The number of children in (1) who were referred for treatment (excluding uncleanliness, defective clothing, etc.)	1,096	55
(5) The number of children in (4) who received treatment for one or more defects (excluding uncleanliness, defective clothing, etc.)	566	Not known.

SANITARY CIRCUMSTANCES OF THE DISTRICT.

Water Supply.

Water is supplied by the Sunderland and South Shields Water Company. It is of good quality, free from pollution, as is evidenced by analysis. It is ample in quantity. The supply is constant. It is, however, rather hard (averaging about 25°—30° Clark's scale). Chemical and bacteriological analyses are made from time to time.

Drainage and Sewerage.

The sewers are sufficient for the present needs of the Borough. There have not been, to my knowledge, any complaints of the escape of sewer gas. The sewage is discharged into the River Tyne without treatment. There are no sewage works.

Scavenging.

The disposal of house refuse and the contents of dry closets is carried out by the Borough Engineer's Department. There are five areas in the Borough which have been scheduled as "unhealthy." The refuse from these areas is removed daily all the year round. That from the remainder of the Borough is removed three times a week in winter and twice a week in summer. The back streets, which are all paved—mostly with setts, and some are cemented—are swept after the removal of the refuse, etc. Most of the work, except sweeping, is done at night.

The town refuse is carted in covered vehicles to the Corporation Staithes and tipped into a hopper barge, which is conveyed, when full, three miles out to sea and the refuse dumped. There have been no complaints of this refuse having found its way back to the shore. During rough weather, when the barge cannot be taken out to sea the refuse is dumped on a tip on agricultural land outside the Borough Boundaries.

Closet Accommodation.

Some 25 or 30 years ago the majority of the sanitary conveniences were of the privy midden type. These have all been converted into small privy receptacles except about 80 privy middens, mainly in an area on the outskirts of the Borough. These receptacles have a capacity of 8 cubic feet, and are used for the reception of domestic refuse and ashes as well as for dejecta. They are constructed of brick and cement, with cement floors. They are emptied from the back street through a hatch near the ground. The Sanitary Inspectors require to exercise constant supervision in order to see that the receptacle and hatch are in a state of repair.

There are in the Borough 15,439 privy receptacles. There are also 144 dry ash-pits holding about a week's accumulation of ashes and refuse, and 223 larger ash-pits holding 2 or 3 loads. These ashpits are not used for the reception of excreta. There are about 4,127 water closets in the Borough, and in connection with them there are 225 " tip-up " ash-bins and 316 moveable bins.

The Council have had under consideration recently the conversion of the present system into a complete water carriage system. It should be recognised that, although inopportune at the moment, the time has come when the substitution of the water carriage for the dry system should be proceeded with.

Consequent on the adoption in 1914 of sections 39-42 of the Public Health Acts Amendment Act, 1907, no new house is allowed to have a privy receptacle. Provision for water-closets must be shown on the plan before it is passed by the Town Council.

In existing tenemented property the standard followed is at least one receptacle to three tenants. On account of the present shortage of housing a certain amount of sub-letting has occurred, and in some cases this standard has not been maintained.

During the years 1902-1920, 575 water closets were substituted for privy receptacles, etc., as a result of administrative action by the Health Department in the abatement of nuisances and the provision of additional accommodation.

Sanitary Inspection of the District.

For the purposes of inspection the Borough is divided into four districts ; there are four Sanitary Inspectors, and a district is allotted to each.

The work of these Inspectors includes, besides their duties under the Public Health Acts, duties under the Housing Acts, the Rats and Mice (Destruction) Act, the Rag Flock Act, and the Rent and Mortgage Interest (Restrictions) Act.

In addition there is a Food Inspector who is also resident Superintendent of the Public Abattoir ; and one Inspector under the Shops Acts, who carries out certain duties in connection with the Factory and Workshop Acts.

Statistical summaries of the work of the Inspectors appear in tables 12-14., pages 121 to 123.

Premises and Occupations which can be controlled by Byelaws or Regulations.

COMMON LODGING HOUSES.

At the end of the year there were 14 occupied registered Common Lodging Houses in the Borough, with accommodation for 565 lodgers. At only one of these houses is there accommodation for female lodgers, the total number so provided for being 7.

In eight of the Common Lodging Houses the registration of the keepers is renewable annually under section 69 (2) of the Public Health Acts Amendment Act, 1907. This is an important provision, as it enables more effective control to be exercised over the keepers and the houses generally.

The Sanitary Inspectors paid 127 visits to Common Lodging Houses.

I am informed by the Chief Constable that his officers paid 667 visits of inspection to these houses, and that there were no prosecutions for offences against the byelaws.

SEAMEN'S LODGING HOUSES.

There were 55 occupied licensed Seamen's Lodging Houses within the Borough at the end of the year, with accommodation for 688 seamen.

The Sanitary Inspectors paid 274 visits to these houses during 1920, and served two notices for structural defects in the premises.

The Chief Constable reports that the Police paid 1,948 visits, and that there were proceedings taken against three persons for six offences against the byelaws governing these houses—one for neglect of cleanliness, one for failure to maintain the ventilation of rooms, two for keeping seamen without a licence, and two for not keeping the records required by the byelaws. In two instances a fine of £2 was imposed in each case ; in two others a contribution of 10s. to the poor box was ordered, and in the remaining two charges the cases were dismissed.

THEATRES AND CINEMAS.

There were, at the end of the year, 14 theatres and cinemas in the Borough. The Inspectors paid 53 visits of inspection.

STABLES AND ALLOTMENT GARDENS.

1,842 visits were paid by the Inspectors to stables and allotment gardens during the year. The object of these visits, apart from general inspection of premises, etc., was to secure the removal of and prevent accumulation of manure. This is found to be necessary since, unless the proprietors are frequently reminded, manure is apt to accumulate. Under the Byelaws manure must be removed at least once a week. Allotment holders are instructed to have any manure dug in within seven days.

OFFENSIVE TRADES.

The only offensive trades carried on in the Borough are tallow boiling, of which there is one place, and tripe preparing, of which there are three places. Besides these there are two gut scrapers, and two tripe preparers in the public slaughterhouse.

In September, 1920, the preliminary steps were taken to have the trades of fish frier and rag and bone dealers declared to be offensive trades.

BATHS AND WASH-HOUSES.

The Corporation have provided a large swimming bath, slipper and Russian baths in the Municipal Baths and Wash-houses. Byelaws regulating their use are in force. The baths are very largely used by the community generally, and arrangements have been made whereby school children are brought by their teachers, in batches, once a week. Last year the attendances at the baths were :—

Swimming baths ..	87,574 (including 16,136 scholars).
Slipper baths	27,602
Russian baths	1,041

Wash-houses are also provided in another part of the same building, and are largely used. There were 13,184 attendances in 1920.

OTHER PREMISES.

Under the sections of this Report dealing with Food, and Factories, Workshops and Shops, reference is made to other premises which can be controlled by byelaws and regulations.

FACTORIES, WORKSHOPS, Etc.

(A) INSPECTION OF FACTORIES, WORKSHOPS, AND WORKPLACES.

The Inspectors have paid 962 visits during the year. Written notices were sent out in 19 cases ; there were no prosecutions. The details are as follows :—

1. Factories (including Factory Laundries).
   Inspections, 93 ; Notices, 12.
2. Workshops (including Workshop Laundries).
   Inspections, 322 ; Notices, 3.
3. Workplaces (other than Outworkers' Premises).
   Inspections, 547 ; Notices, 4.

(B) DEFECTS FOUND ON INSPECTION.

The defects found are summarised in the following table :—

Particulars of Defect.	Number of Defects.				Number of Prosecutions.
	Found.	Remedied.	Receiving Attention.	Referred to H.M. Inspector.	
Nuisances under the Public Health Acts: *					
Want of cleanliness	25	25	..	..	..
Want of ventilation	2	2	..	..	..
Overcrowding	1	1	..	..	..
Want of drainage of floors	..	..	..	..	..
Other nuisances	3	3	..	..	..
Sanitary accommodation—					
Insufficient	2	1	1	..	..
Unsuitable or defective	9	9	..	..	..
Not separate for sexes	6	6	..	..	..
Offences under the Factory and Workshop Acts :—					
Illegal occupation of underground bakehouse (s. 101)	..	..	..	..	..
Breach of special sanitary requirements for bakehouses (s. 97 to 100)	6	6	..	..	..
Other offences (excluding offences relating to Outwork)	..	..	..	..	..
Total	54	53	1	..	..

* Including those specified in sections 2, 3, 7, and 8 of the Factory and Workshop Act, 1901, as remediable under the Public Health Acts.

(C) REGISTERED WORKSHOPS.

The following 345 workshops were on the register at the end of the year :—

Making of Wearing Apparel, etc. (Dressmakers, 48 ; Tailors, 29 ; Milliners, 33 ; Boot Repairers, 23 ; Laundries, 7 ; Hosiers, 8).	148
Preparing of Food-Stuffs, etc. (Bakehouses, 53 ; Fish Curers, 5 ; Tripe Preparers, 3 ; Salt Packers, 3 ; Pickle Works, 2 ; Beer Bottler, 1 ; Sweets and Jam Makers, 3 ; Drysalter, 1).	71
Joinery, etc. (Joiners, 25 ; Cabinet Makers and Upholsterers, 11 ; Cartwrights, 8 ; Picture Frame Makers, 2 ; Coopers, 2).	48
Plumbers, etc. (Plumbers, 8 ; Smiths, 12 ; Boat Builders, 9 ; Engineer, 1 ; Boiler Composition Maker, 1 ; Oxy-Acetylene Welder, 1).	32
Watch Repairers, etc. (Watch Repairers, 7 ; Photographers, 5 ; Compass Maker, 2 ; Scale Makers, 2 ; Cycle Repairers, 5 ; Sign Writer, 1 ; Lithographer, 1 ; Printer, 1 ; Wire Worker, 1).	25
Other (Sadlers, 4 ; Sail Makers, 3 ; Rope Makers, etc., 3 ; Timber Merchants, 2 ; Scenery Maker, 1 ; Umbrella Repairer, 1 ; Sculptors, 3 ; Sack Maker, 1 ; Rag Stores, 3).	21

(D) HOMEWORK.

The number of Outworkers in the Borough is very small.

Two employers sent lists once in the year each containing one name. The total number of outworkers reported was 2, both engaged in the making or altering of wearing apparel.

Two visits of inspection were paid to these premises by the Shops Inspector. There were no instances of unwholesome premises (section 108), or of infected premises (sections 109 and 110), and there were no prosecutions.

(E) OTHER MATTERS ARISING OUT OF WORKSHOP INSPECTION.

The following matters call for report :—

Class.	Number
Matters notified to H.M. Inspector of Factories :—	
Failure to affix abstract of the Factory and Workshop Acts (s. 133, 1901)	..
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Acts (s. 5, 1901)	
Notified by H.M. Inspector	30
Reports (of action taken) sent to H.M. Inspector	29
Other	..
Underground bakehouses (s. 101) :—	
In use at the end of the year	1

(F) INSPECTION UNDER THE SHOP ACTS.

Local Orders.

The following Special Orders are in force locally :—

(1) South Shields Holiday Resort Order, 1912, which exempts all shops from the obligation to close on the weekly half-holiday during the months of June, July, August, and September.

(2). Ocean Road Exempted Area Order (Stationers, etc.), 1912, which exempts, within the prescribed area, from the obligation to close on the weekly half-holiday the following retail trades, etc. :—Stationers, Picture Postcard Dealers, Fancy Goods Dealers, and Toy Dealers.

(3). Tyne Dock Exempted Area Order (Grocers, etc.), 1912, which exempts, within the prescribed area, from the obligation to close on the weekly half-holiday the following retail trades, etc. :—Grocers, Drapers, Barbers, Boot Dealers, and Ship Store Merchants.

(4). Stationers' Exemption Order, 1914, which exempts all Stationers in the area comprising the whole of the Borough (with the exception of the Ocean Road and Tyne Dock exempted areas) from the provisions of Section 4 in regard to closing for the weekly half-holiday as regards shops in which the business of stationer is carried on.

(5). Hairdressers' Weekly Half-Holiday Order, 1914, whereby all shops to which this Order applies shall be closed at 1 p.m. on Wednesday.

(6). Hairdressers' Closing Order, 1915, which prescribes the closing hours in all hairdressers' shops (other than those in the Ocean Road and Tyne Dock exempted areas).

(7). Butchers' Closing Order, 1915, which prescribes the closing hours in all butchers' shops (not including Pork Butchers).

(8). Butchers' Half-Holiday Order, 1915, under which all shops to which this Order applies must close at 1 p.m. on Wednesdays.

The making of a Closing Order for Pork Butchers' Shops, and of a new Closing Order for Butchers' Shops was under the consideration of the Town Council at the end of the year.

Administration.

The following is a summary of the work of the Shops Inspector during the past year :—

Number of shops on register at 31st December........ (In about 45 per cent. of these shops assistants are employed).	2,385
Number of visits paid to shops by Inspector (including stalls in Market Place, and stalls and cafes on North and South Beach)	4,969
Interviews and appointments	219
Complaints received and investigated	29

Infringements of the Shops Acts—

Assistants employed about business of shop on their weekly half-holiday	5
Prescribed forms as to assistants' half-holiday not exhibited	50
Prescribed forms not kept up-to-date	50
Assistants not having proper meal hours..............	1
Young persons working excessive hours	—
Non-observance of weekly half-holiday	10
No weekly half-holiday notices exhibited	20
Selling non-perishable goods on closing day	1
Total	137

All but one of the above infringements were first offences ; the persons in default were cautioned by the Inspector either verbally or by written intimation, and the cases reported to the Health Committee. In two instances letters of caution were sent by the Town Clerk. No prosecutions were instituted.

Infringements of the Public Health Acts Amendment Act, 1890—

No sanitary convenience for shop assistants	3

These infringements were reported to the Borough Engineer for action in accordance with section 22 of the Act.

The Shops (Early Closing) Act, 1920, came into force on 3rd December. It continues in force until the end of 1921 the General Early Closing Orders for Shops which had been made under the Defence of the Realm Regulations. The effect of the Act is that the duty of enforcing the provisions of the Order was transferred from the Police to the Local Authorities under the Shops Acts.

FOOD.

(A) MILK SUPPLY.

The greater part of the milk consumed in the town is imported, some of it from a considerable distance. There are only four cowsheds within the Borough boundaries, accommodating 40 cows. In the event of curtailment of railway facilities, there is the risk of a considerable shortage of milk. The arrangements for the supply and distribution are in the hands of private firms.

Sixteen samples of milk were taken for analyses, two of which were informal. 15 were genuine. One, an informal sample, was 15 per cent. deficient in milk fat; a formal sample taken subsequently from the same firm was genuine.

In view of the unsatisfactory decisions on the milk standard in legal proceedings, the Town Council in July last adopted a resolution in similar terms to resolutions passed by other local authorities "that a representation be made to the Ministry of Health and to the Ministry of Agriculture calling their attention to the necessity of amending the Sale of Food and Drugs Acts by requiring that new milk when sold shall contain at least a specific percentage of milk fat," and that "it shall be no defence in proceedings under Section 6 of the Act to prove that the deficiency in milk fat arose through failure to restore by the use of a plunger or by some well known method, the milk to its original condition."

Two samples of dried milk were also taken (informally). The constituent parts were certified as under:—

	No. 1. per cent.	No. 2. per cent.
Proteids	25.8	24.6
Fat	21.0	25.0
Ash	5.36	4.52
Water	5.10	4.34
Milk Sugar, etc.	42.74	41.54

Tuberculous Milk.

39 samples of milk were examined in the Municipal Laboratory; 29 from cows in the Borough, the remainder were samples taken on delivery at the railway station or from local milk shops. One of the guinea pigs inoculated was found at the end of three weeks to be tuberculous, the bacilli being recovered from the inguinal glands. On the Inspector again visiting the cowshed, the cow from which the sample was taken was found to be ill. She was slaughtered, and on examination the lungs, pleura, peritonium, and udder were found to be tuberculous.

Dairies, Cowsheds, and Milkshops Orders.

55 visits of inspection were paid by the Food Inspector during the year to cowsheds and 247 to milkshops, in addition to visits by the Shops and Sanitary Inspectors in the course of their respective duties.

I visited the cowsheds with the Inspector; they were in a sanitary condition as regards ventilation, drainage, and cleanliness. In one case the lighting appeared to be somewhat deficient, but was capable of being easily remedied.

There are 120 registered milkshops in the Borough. 15 applications for registration were received during the year.

Milk and Cream Regulations, 1912 and 1917.

All the samples of milk (18) taken for the purpose of chemical analysis were examined for the presence of preservatives. None were found. No samples of cream were obtained under the Regulations. The trade in cream and preserved cream is a very small one in the Borough.

Milk (Mothers and Children) Order, 1919.

Under this Order, which amends the Order of 1918, local authorities are empowered to supply milk to expectant and nursing mothers, and to children under 5 years of age, at or below cost price to those who are unable to pay the current retail prices, and to necessitous cases. During 1920, 4,269 lbs. of dried milk, and 5,688 pints of fresh milk were given free, and 23,106 lbs. of dried milk were sold at about cost price.

The supply of milk takes up a considerable amount of the time of the Health Visitors, who are required to make careful enquiry into the circumstances of applicants. This is especially necessary in the case of applicants for free milk. The financial circumstances are enquired into in every case; if this were not done, the system being open to abuse, a number of people, for whom the provision is not intended, would be able to take advantage of it.

Each application for free milk is reviewed once a month after enquiry has been made to determine whether the financial circumstances have altered. It has not been found practicable to determine any definite scale of income for applicants, each case is taken on its merits, due consideration being given to illness or special hardship in the household.

(B) MEAT AND OTHER FOODS, etc.

Meat Inspection.

There are no private slaughterhouses in the Borough.

In accordance with Section 127 of the South Shields Corporation Act, 1896, and the South Shields Extension Order of 1901, no person may, except with the consent of the Corporation, slaughter in the way of trade, any cattle, sheep, horse or pig within the Borough except in the Public Abattoir. There were no infringements of the above provisions during the year.

Public Abattoir.

The Inspector of Meat is also the resident Superintendent of the Abattoir ; the inspection of meat is therefore very complete. The main slaughter-hall is on the large hall principle, and this facilitates inspection ; the Inspector can see every carcase as it is being prepared for sale. The details regarding the site, lairage, cold storage, etc., are given in my Annual Report for 1919.

The following table gives the number of animals slaughtered in the last 8 years. The Abattoir was erected in 1906.

	1913	1914	1915	1916	1917	1918	1919	1920
Beasts	3,585	4,269	4,249	5,113	*5,494	4,760	3,858	3,348
Calves	189	166	180	46	487	35	357	193
Pigs ..	6,358	5,302	5,561	4,576	3,980	1,725	2,043	4,184
Sheep	31,872	31,418	29,612	32,463	31,368	23,812	16,911	19,985
Total	42,004	41,155	39,602	42,198	41,329	30,332	23,169	27,710

* Excluding 2,531 beasts slaughtered for the Military authorities.

Visits of Inspection to Premises.

During the year the Inspector of Meat, etc., paid 5,107 visits to premises where the various trades under his supervision were carried on. These visits were paid as follows :—

Butchers' shops	1,865	visits.
American meat and fish shops ..	2,634	,,
Fried fish shops	63	,,
Fish curing places	25	,,
Milkshops and dairies	247	,,
Ice cream shops	17	,,
Cowsheds	55	,,
Bakehouses	137	,,
Tallow boiling places	3	,,
Triperies	44	,,
Gut scraping places..............	17	,,

The number of such premises in the Borough at the end of the year was as follows :—

Butchers' shops American meat shops	137
Pork butchers' shops	18
Fresh fish shops	30
Fried fish shops	71
Fish curing places	5
Milkshops and dairies	120
Cowsheds	4
Ice cream shops	33
Bakehouses	53
Tallow boiling places	1
*Triperies	3
*Gut-scraping places	—

* Exclusive of 2 tripe preparers and 2 gut-scrapers who use premises set apart at the Public Abattoir.

Bakehouses.

There are 53 bakehouses in the Borough (of which one is underground). 137 visits of inspection were paid to these by the Food Inspector, where necessary in collaboration with one of the Sanitary Inspectors. In addition, the Shops Inspector pays visits to bakehouses and reports any defects found.

Considerable benefit would accrue to the health of the public if all places in which food is prepared and stored were required to be registered and licensed, and under more complete supervision. Under existing conditions any person can open a cookshop or cafe in places which may be undesirable. The provisions as to bakehouses might very well be extended so as to include at least the kitchens of public eating houses.

Food Condemned and Destroyed.

The following are particulars of the food condemned and destroyed during the year :—

AT THE ABATTOIR.

Beasts :	15	carcases (Tuberculosis : 8 cows, 7 heifers).
	2	forequarters (Tuberculosis).
	8	sets of lungs (Tuberculosis).
	2	livers (Ulcers, 1 ; "flukes," 1).
	2	sets of livers and lungs. (Tuberculosis).
Sheep & Lambs :	3	carcases. (Found dead).
Pigs :	3	carcases. (Found dead).

Outside the Abattoir.

The whole of the undermentioned food-stuffs were condemned on account of decomposition or unsoundness, except where otherwise stated :—

Beasts :	1 forequarter : home-slaughtered (damaged).
	2 hindquarters : frozen (Bonetaint, 1 ; decomposition, 1).
	1 liver : home-slaughtered (Tuberculosis).
	297 (5¼ cwt.) ox tails.
	19¼ cwt. frozen beef. (Bonetaint, 3¼ cwt. ; decomposition, 16 cwt.)
	1 cwt. (17 tins) corned beef.
Calves :	2 carcases.
	Viscera of 2 calves.
Sheep & Lambs :	116 carcases : frozen, 115; home-slaughtered, 1.
	2 forequarters : frozen.
	36 dozen hearts : frozen.
	100 lbs. frozen mutton.
	46 lbs. (8 tins) corned mutton.
Pigs :	8 cwt. salted heads.
	3 cwt. viscera.
	80 lbs. frozen pork.
Bacon & Ham :	17 tons 4 cwt. (This was part of a consignment of imported bacon and ham. The food was found to be slightly decomposed when the cases were opened, and decomposition became rapid. It was disposed of to a soap manufacturer).
Tripe :	194 lbs. frozen.
Tongue :	2 cwt. 12 lbs.
	3 tins.
Rabbits :	236 : frozen, 220 ; home-killed, 16.
Tinned Rabbit :	2 tins.
Fish :	Salmon, 13 tins.
	Lobster, 11 tins.
	Crab, 2 tins.
Eggs :	643.
Butter :	12¼ lbs.
Milk :	128 tins, condensed.
Fruit and Vegetables :	Tomatoes, 111 tins.
	Pineapple, 11 tins.
	Figs, 9 cwt.
	Potatoes, 4 cwt.
	Bottled fruit, 3 bottles.
Confectionery, &c. :	Syrup, 1 tin.

Sale of Food and Drugs Acts.

The number of samples taken during the year and submitted to the Borough Analyst was 153. The following are particulars of the samples, results of the analyses, and of the action taken in certain cases :—

MILK.

16 samples were taken, two of which were informal samples.
15 were " genuine."
1, an informal sample, was 15 per cent. deficient in milk fat. A sample taken subsequently from the same firm was genuine.

Of the 16 samples, 8 were taken in the course of delivery at the railway station ; all were genuine.

DRIED MILK.

2 samples were taken (informally). The constituent parts were as stated on page 84.

BUTTER.

22 samples were taken, 2 of which (both genuine) were informal samples.

19 samples were genuine.

2 contained boric acid, 0.09 per cent. and 0.14 per cent. respectively. No action taken.

1 was certified as containing 17 per cent. water. A letter of caution was sent. The vendor and wholesale dealers in subsequent correspondence produced evidence to show that the butter was of guaranteed standard and a Ministry of Food purchase.

MARGARINE.

16 samples were taken. They all contained boric acid, as follows :—Proportion : 0.07 per cent., 0.10 per cent., 0.11 per cent., 0.15 per cent., 0.20 per cent., 0.22 per cent., 0.24 per cent. (two), 0.25 per cent., 0.26 per cent. (two), 0.31 per cent. (two), 0.32 per cent., 0.38 per cent., 0.46 per cent.

SAGO.

2 samples were taken. Both were certified as " 100 per cent. tapioca." No action taken.

BAKING POWDER, ETC.

3 samples of baking powder, 2 of self-raising flour, and one of raising powder were taken. The raising powder was certified as tartaric acid and sodium bicarbonate, the self-raising flours as super-phosphate and sodium bicarbonate, and one of the baking powder as a tartaric acid powder.

CINNAMON.

2 samples were taken. Both were genuine, though one was certified as rather high in ash, but not quite outside the possible limit of genuineness.

GROUND GINGER.

4 samples were taken. They were all genuine, though one was reported as of "poor quality."

WHISKY.

1 sample was taken. It was 34.1 per cent. under proof.

RUM.

1 sample was taken. It was 33.3 per cent. under proof.

OTHER SUBSTANCES.

81 samples, all of which were genuine, were taken of the following substances. Lard, 10 (1 informal); Malt vinegar, 10; Pepper, 9; Mustard, 6; Ground Rice, 5; Oatmeal, 4; Sweets, 4; Cassia, 3; Cocoa, 2; Tea, 2; Coffee, 2; Jam, 2; Corn Flour, 2; Tapioca, 2; Barley, 2; Castor Oil, 2; Bun Flour, 2; Custard Powder, 2; Sugar, 1; Flour, 1; Jelly Powder, 1; Oxo Cubes, 1; Syrup of Figs, 1; Glycerine, 1; Oil of Turpentine, 1; Epsom Salts, 1; Camphorated Oil, 1; Ground Nutmeg, 1.

All the samples of Butter, Milk, and Margarine were examined for preservatives.

HOUSING.

General Housing Conditions.

Conditions as to housing have not materially altered since the report of Dr. Mathieson, published in 1918, except that the shortage of houses has become more acute.

In 1920 the Town Council accepted a tender for the erection of 1,000 houses on the Cleadon Park Estate, and work was commenced on the site towards the end of the year.

Ten houses were built by private enterprise during the year. Since 1911 the total number of houses built is 383 (comprising 662 dwellings).

Overcrowding.

According to the Census of 1911 the average number of occupants of dwellings of 1—9 rooms was 1.38 persons per room, the second highest figure among the then 75 County Boroughs of England and Wales. This overcrowding is undoubtedly more accentuated now on account of the increase in the population—an increase as estimated by the Registrar-General, amounting to 7,298, while only 662 dwellings have been provided. Consequent on the shortage of house accommodation, a great deal of sub-letting has been going on during the last few years. The tenants themselves are not without blame in this matter, although it is only fair to say that this state of affairs is entirely due to the abnormal shortage of houses. Very often a room or two is sub-let to a member of the family who gets married, or a room may be temporarily sub-let to some friends, but later it is found that other houses are not available and the arrangement becomes permanent. Action can, of course, be taken to call upon the tenant or owner to abate the nuisance of overcrowding, but one is always faced with the question as to alternative accommodation for those to whom the premises have been sub-let. Until many more houses are provided there does not seem to be a way out of the difficulty.

Fitness of Houses.

A good deal of progress was made during the year in remedying unfitness, and as materials become more abundant it will be possible to make improvements in many unfit houses. At the same time there are in South Shields many houses which cannot be made fit, and the policy has been to make such houses as habitable as possible, until other accommodation can be obtained, when they should be dealt with by closing and demolition. The figures recorded in the Housing Table on pages 92 and 93 do not by any means represent the total number of unfit houses existing.

A summary of the Reports of the Sanitary Inspectors who are also Inspectors under the Housing Acts is given in Table 12, page 121.

A statement of the defects in houses and nuisances dealt with is given in Table 13, page 122.

Unhealthy Areas.

As detailed in my last Annual Report, there are five areas already represented as unhealthy under Part I. of the Housing Act of 1890. No progress was made during the year in dealing with these areas principally because there are no houses to which displaced tenants could go.

HOUSING CONDITIONS.

STATISTICS, YEAR ENDED 31ST DECEMBER, 1920.

1.—General.

(1)	Estimated population	115,945
(2)	General death-rate	17.2
(3)	Death-rate from tuberculosis	1.76
(4)	Infantile mortality	121

(5) Number of dwelling-houses of all classes :
approximately 15,000 (25,000 tenements).

(6) Number of working-class dwelling-houses :
approximately 13,500 (22,500 tenements).

(7) Number of new working-class houses erected :
10 (13 tenements).

2.—Unfit Dwelling-houses.

I.—Inspection.

(1) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts) ....See note below*

(2) Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910..129 (347 tenements).

(3) Number of dwelling houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation ......49 (132 tenements).

* The four Inspectors of Nuisances made 21,114 inspections of dwelling-houses, but many are duplicate visits to the same house.

(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation 297

II.—Remedy of Defects without Service of formal Notices.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers 479

III.—Action under Statutory Powers.

A. *Proceedings under section* 28 *of the Housing, Town Planning, etc., Act,* 1919............ Nil.

B. *Proceedings under Public Health Acts.*

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied........... 45

(2) Number of dwelling-houses in which defects were remedied—

(*a*) by owners 45

(*b*) by Local Authority in default of owners ....

C. *Proceedings under sections* 17 *and* 18 *of the Housing, Town Planning, etc., Act,* 1909.. Nil.

3.—Unhealthy Areas.

Areas represented to the Local Authority with a view to Improvement Schemes under (*a*), Part I., or (*b*), Part II., of the Act of 1890.—See table on page 59 of Annual Report for 1919.

4. Number of houses not complying with the Building Byelaws erected with consent of Local Authority under section 25 of the Housing, Town Planning, etc., Act, 1919.. Nil.

5. Staff engaged on housing work with, briefly, the duties of each officer ....

The Medical Officer of Health and four Inspectors of Nuisances, who are also designated Housing Inspectors with duties as defined under the Housing (Inspection of District) Regulations, 1910.

SANITARY ADMINISTRATION.

Staff.

A list of the Staff of the Public Health Service is given on page ii. The work of the Inspectors and others is referred to in various sections of this report, *e.g.*, "Sanitary Circumstances of the District."

Hospital Accommodation.

Reference to hospital accommodation will be found on pages 14 to 19.

List of Local Acts and Orders, Adoptive Acts, Byelaws and Regulations relating to Public Health in force in the Borough.

1.—Local Acts and Orders.

South Shields Improvement Act, 1853.

South Shields Improvement Amendment Act, 1861.

South Shields Corporation Act, 1896.

South Shields Corporation Act, 1900.

South Shields (Extension) Order, 1901 (relating to the extension of the Borough, and the provision of the public slaughterhouse) which was confirmed by the Local Government Board's Provisional Orders Confirmation (No. 7) Act, 1901.

South Shields Corporation Act, 1903.

North East Durham Joint Smallpox Hospital Order, 1910, confirmed by the Local Government Board's Provisional Orders Confirmation (No. 10) Act, 1910.

South Shields Corporation Act, 1915.

Venereal Diseases (Cumberland, etc.) Order, 1920, applying Section 1 of the Venereal Disease Act, 1917, to the County Borough of South Shields and other areas.

Shops Acts Local Orders are detailed on pages 81 and 82.

2.—Permissive Acts adopted by the Council.

	Date of adoption.
Baths and Wash-houses Acts	2nd July, 1851.
Infectious Disease (Prevention) Act, 1890	4th March, 1891.
Public Health Acts Amendment Act, 1890—	
Parts II., III., and V.	30th June, 1891.
Part IV.	1st February, 1893.
Public Health Acts Amendment Act, 1907—	
Sections 23, 24, 27, 33, 34, 35, 36, 37, 39, 40, 41, 42, 47, 49, 50, 56, 57, 59, 60, 61, 62, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 78, 79, 81, 85, 87, 88, 89, 90, 91, 94, & 95	Most of these sections were adopted on 14th June, 1909, & 28th June, 1910; 1 in 1912, 4 in 1914 and 3 in 1920.

(Certain conditions were attached to some of the adopted sections by the Local Government Board and Ministry of Health when giving approval to the applications, and many of the provisions of the South Shields Corporation Act, 1896, were repealed. The subject matter of other sections of the local act of 1896 is similar to various sections of the Act of 1907 which have not been adopted).

3.—BYELAWS AND REGULATIONS.

	Date.
General Byelaws	4th February, 1851.
New Streets and Buildings	18th April, 1866.
Prevention of Nuisances & Annoyances in Streets	18th April, 1866.
Public Bathing	4th May, 1870.
Prevention of Nuisances & Annoyances in Streets	12th October, 1872.
Seamen's Lodging Houses	1st June, 1887.
Dairies, Cowsheds, and Milkshops (Regulations)	4th April, 1894.
Common Lodging Houses	1st August, 1894.
Houses let in Lodgings	30th March, 1897.
Drainage of Houses and Buildings (Regulations)	7th September, 1898
Drainage—Mode in which communications are to be made between drains and sewers (Regulations)	4th October, 1899.
New Streets and Buildings	4th April, 1900.
New Buildings	7th October, 1903.
Regulation of the Seashore	16th May, 1905.
Parks	12th January, 1906.
Public Slaughterhouses	14th April, 1908.
Registries for Female Domestic Servants	22nd December, 1909.
Public Baths	22nd December, 1909.
Public Wash-houses	22nd December, 1909.
Spitting in Public Places	5th March, 1913.
Employment of Children	16th November, 1920.

Arrangements for Chemical and Bacteriological Work.

CHEMICAL.

Dr. Dunn, D.Sc., F.I.C., the Borough Analyst, reported on 153 analyses during the year. Samples are taken usually once a month by the Food Inspector, accompanied by one of the Sanitary Inspectors. Both formal and informal samples are submitted for analysis.

Details of the articles analysed will be found in the section of this Report which deals with Food.

BACTERIOLOGICAL.

The Corporation have provided a Municipal Laboratory in the Town Hall. Pathological material is examined by the Medical Officer of Health and Tuberculosis Officer. It is well equipped for routine examination of the specimens sent and for the preparation of media. The Laboratory is licensed by the Home Office for the purpose of animal experiment. An animal house has been erected within the curtilage of the Town Hall.

The nature and number of examinations, etc., made at the Municipal Laboratory during 1920 are shown in the following table :—

Nature of Examination.	*Number*
Swabs for diphtheria bacilli	101
Sputum for tubercle bacilli	157
Pus ,, ,,	1
Blood for Widal re-action	6
,, bacteriological examination	1
,, enumeration of cells	1
Faeces for b. dysenteriae	1
,, b. typhosus	4
Sputum for pneumococci	1
*Pus for gonococci	10
Hair for ringworm	1
Urine for chemical and microscopical examination	7
Urine for bacteriological examination	1
Urine for diazo-benzol re-action	3
Vaccines prepared	12
Total	307

* This does not include the microscopical examinations at the Venereal Disease Clinic. In addition, specimens of blood for the Wassermann re-action are sent to the College of Medicine, Newcastle.

The examinations recorded in the above table were carried out free of charge.

Practically all media used is prepared in the laboratory.

In addition, 39 samples of milk were examined biologically for tubercle bacilli ; one sample was found to contain the organism.

I have to acknowledge my indebtedness to Mr. W. T. Foster for his services, rendered voluntarily in the Laboratory. He has been responsible, among other things, for the preparation of most of the media used.

APPENDIX.

1. Summaries of certain Statistics re Births, Deaths, and Infectious Diseases.

Table 1—Deaths during 1920 : Causes.

,, 2—Deaths during 1920 : Seasonal and Ward Distribution.

,, 3—Deaths during 1920 : from Influenza and Pneumonia.

,, 4—Deaths during 1920 : in Institutions, Uncertified Deaths, etc.

,, 5—Population, Births and Deaths during 1920 and previous years.

,, 6—Birth-rates and Death-rates for past fifty years.

,, 7—Infant Deaths during 1920 : Causes and Ages.

,, 8—Infant Deaths during 1920 : Causes and Ward Distribution.

,, 9—Infant Deaths : Summary for 1911-1920 : Causes and Ages.

,, 10—Infant Deaths : Summary for 1911-1920 : Causes and Ward Distribution.

,, 11—Infectious Diseases during 1920 : Cases removed to Hospital, Ages and Ward Distribution.

2. Summaries of the Work of the Sanitary Inspectors during 1920.

Table 12—Visits.

,, 13—Defects, etc., for which notices were issued.

,, 14—Structural improvements effected.

3. Summary of Meteorological Observations during 1920.

Table 15—Observations taken daily at the Bents Park and Health Department.

TABLE 1.—CAUSES OF DEATH, during 1920, of Persons belonging to the County Borough of South Shields, classified in accordance with the Registrar-General's Manual of the International List, as adapted for use in England and Wales.

Causes of Death.	All Ages.	Ages at Death.																				
		0-3 Months.	3-6 Months.	6-12 Months.	Total under 1 year.	1-	2-	3-	4-	Total under 5 years.	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	85 and upwards.	55 to 60
I.—GENERAL DISEASES.																						
1. Enteric fever	5	..	..	..	..	..	..	..	..	..	..	..	2	..	2	..	1	..	..	..	..	..
2. Typhus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3. A. Relapsing fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Mediterranean fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
4. Malaria	2	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..
5. A. Smallpox—Vaccinated	*1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
B. ,, Not vaccinated	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. ,, Doubtful	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
6. Measles	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
7. Scarlet fever	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
8. Whooping cough	17	1	3	7	11	5	..	..	..	16	1	..	..	..	..	..	..	..	..	..	..	..
9. A. Diphtheria	13	..	..	..	..	..	5	1	2	8	5	..	..	..	..	..	..	..	..	..	..	..
B. Membranous laryngitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Croup	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
10. Influenza	96	3	2	..	5	2	..	1	..	8	5	6	3	11	15	11	15	11	8	2	1	4
11. Miliary fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
12. Asiatic cholera	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
13. Cholera nostras	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
14. Dysentery	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
15. Plague	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
16. Yellow fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
17. Leprosy	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
18. Erysipelas	3	..	..	1	1	..	..	..	..	1	..	..	..	..	..	1	..	1	..	..	..	..
19. A. Mumps	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. German measles	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

	C. Varicella	1	..	..	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
	D. Other epidemic diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
20.	A. Pyæmia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	B. Septicæmia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	C. Vaccinia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
21.	Glanders	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
22.	Anthrax (Splenic fever)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
23.	Rabies	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
24.	Tetanus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
25.	A. Actinomycosis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	B. Other mycoses	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
26.	Pellagra	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
27.	Beri-beri	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
28.	A. Pulmonary tuberculosis (not acute)	95	..	..	..	..	..	..	2	..	2	1	6	10	15	28	16	12	4	1	..	..	3
	B. Phthisis (not defined as tuberculous nor acute)	46	..	..	..	..	1	..	..	..	1	..	2	3	7	14	9	7	3	..	..	..	1
29.	A. Acute phthisis	8	..	..	..	..	..	1	..	..	1	..	..	2	1	1	3	..	..	..	..	..	..
	B. Acute miliary tuberculosis	7	..	..	..	..	..	..	..	1	1	4	..	1	1	..	..	..	..	..	..	..	..
30.	Tuberculous meningitis	21	..	..	1	1	5	1	3	1	11	4	2	1	1	2	..	..	..	..	..	..	..
31	A. Tabes mesenterica	4	..	..	..	..	..	2	..	..	2	1	..	..	1	..	..	..	..	..	..	..	..
	B Other peritoneal and intestinal tubercle	10	1	1	..	2	1	1	..	1	5	1	2	1	..	1	..	..	..	..	..	..	..
32.	Tuberculosis of spinal column	2	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..
33.	Tuberculosis of joints	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
34.	Tuberculosis of other organs—																						
	A. Lupus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	B. Scrofula	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	C. Other tuberculosis	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
35.	Disseminated tuberculosis	10	..	..	1	1	3	..	..	..	4	2	2	1	1	..	..	..	..	..	..	..	..
36.	A. Rickets	3	..	..	..	..	1	..	2	..	3	..	..	..	..	..	..	..	..	..	..	..	..
	B. Other forms of bone softening	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
37.	Syphilis	16	9	3	..	12	1	..		..	13	..			..	2	..	..	1	..	..	..	..
38.	A. Soft chancre	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	B Gonococcus infection	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	C. Purulent ophthalmia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

*Died in Port of London Hospital.

TABLE 1.—CONTINUED.

	CAUSES OF DEATH.	All Ages.	AGES AT DEATH.																				55 to 60
			0-3 Months.	3-6 Months	6-12 Months.	Total under 1 year.	1-	2-	3-	4-	Total under 5 years.	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	85 and upwards.	
39.	Cancer of the buccal cavity	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	2	3	..	..	1
40.	,, stomach, liver, &c.	29	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	7	8	6	4	..	5
41.	,, peritoneum, intestines and rectum	22	..	..	..	..	1	..	..	..	1	..	..	..	1	..	1	7	6	6	..	..	3
42.	,, female genital organs	27	..	..	..	..	..	..	..	..	..	..	..	..	..	3	4	9	8	3	..	..	2
43.	,, breast	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	..	2	1	..	..
44.	,, skin	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..
45.	,, other or unspecified organs	13	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	4	3	2	..	2
46.	Other tumours (situation undefined) :—																						
	A. Angioma	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	B. Adenoma	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	C. Other tumours	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
47.	Rheumatic fever	11	..	..	..	..	..	..	..	..	..	..	2	3	1	2	2	..	1	..	..	..	..
48.	A. Chronic rheumatism........	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	..	..
	B. Osteo-arthritis	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..
	C. Gout	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
49.	Scurvy	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
50.	Diabetes	7	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	1	3	1	..	..	2
51.	Exophthalmic goitre	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
52.	Addison's disease.............	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
53.	A. Leucocythæmia (Leuchæmia)	3	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	..	..	..	..	..	..
	B. Lymphadenoma	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
54.	Anæmia, Chlorosis	5	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	1	1	1	..	..	1
55.	A. Diabetes insipidus..........	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

	B. Purpura	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	C. Hæmophilia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	D. Other general diseases	2	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..
56.	Alcoholism (acute or chronic)	3	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	1	..	..	..	..	..
57.	A. Occupational lead poisoning (chronic)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	B. Non-occupational lead poisoning (chronic)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
58.	Other chronic occupational poisonings	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
59.	Other chronic poisoning	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
II.—DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SPECIAL SENSE.																						
60.	Encephalitis	5	..	..	..	..	..	..	1	..	1	..	..	1	..	..	..	1	1	1	..	..	..
61.	A. Cerebro-spinal fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	B. Posterior basal meningitis	1	..	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
	C. Meningitis, other forms	14	3	..	..	3	3	2	1	..	9	1	1	..	1	1	1	..	..	..	..	..	..
62.	Locomotor ataxy	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
63.	Other diseases of the spinal cord	10	..	..	1	1	..	..	..	..	1	..	..	..	..	2	2	2	1	2	..	..	1
64.	A. Apoplexy	34	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	4	9	14	6	..	3
	B. Serous apoplexy and œdema of brain	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	C. Cerebral congestion	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
	D. Cerebral atheroma	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
	E. Cerebral hæmorrhage	32	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	4	13	10	3	..	7
65.	Softening of brain	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
66.	Paralysis without specified cause:																						
	A. Hemiplegia	15	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	5	5	3	1	..
	B. Paraplegia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	C. Other forms of paralysis	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
67.	General paralysis of the insane	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	2	..	..	..	..	..
68.	Other forms of mental alienation	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	1	..	..	..
69.	Epilepsy	7	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	3	..	2	..	..	..

TABLE 1.—Continued.

Causes of Death.	All Ages.	Ages at Death.																				55 to 60
		0-3 Months.	3-6 Months.	6-12 Months.	Total under 1 year.	1-	2-	3-	4-	Total under 5 years.	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	85 and upwards.	
70. Convulsions (non-puerperal; 5 years and over) :—																						
A. Epileptiform convulsions....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Other forms of convulsions..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
71. Infantile convulsions (under 5 years) :—																						
A. Convulsions with teething ..	18	..	5	10	15	3	..	..	..	18	..	..	..	..	..	..	..	..	..	..	..	..
B. Other infantile convulsions ..	31	15	9	5	29	1	1	..	..	31	..	..	..	..	..	..	..	..	..	..	..	..
72. Chorea	3	..	..	..	..	..	..	..	..	..	1	1	..	1	..	..	..	..	..	..	..	..
73. A. Hysteria, Neuralgia, Sciatica	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Neuritis	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..
74. A. Idiocy, Imbecility.........	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Cretinism	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Cerebral tumour	4	..	..	..	..	..	..	..	..	..	1	..	1	..	1	..	..	..	..	1	..	..
D. Other diseases of the nervous system...............	3	1	..	..	1	..	..	..	..		..	..	1	..	..	1	..	..	..	..	..	..
75. Diseases of the eyes and annexa..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
76. A. Mastoid disease	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
B. Other diseases of the ear	5	1	..	..	1	..	..	..	..	1	2	..	1	..	..	..	1	..	..	..	..	..
III.—DISEASES OF THE CIRCULATORY SYSTEM.																						
77. Pericarditis	2	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..
78. A. Acute myocarditis..........	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Infective endocarditis	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	..	..	..	..	..
C. Other acute endocarditis	3	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	1	..	..	..	1

79. A. Valvular disease	95	..	..	..	..	..	..	..	..	..	3	2	2	..	6	7	14	22	30	8	1	10
B. Fatty degeneration of the heart	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
C. Other organic disease of the heart	55	..	..	..	..	1	..	..	..	1	..	..	..	..	3	6	14	16	12	2	1	6
80. Angina pectoris	4	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	2	..	..	..
81. A. Aneurysm	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	..	..	..	..
B. Arterial sclerosis	42	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	3	15	15	5	..
C. Other diseases of arteries	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
82. A. Cerebral embolism and thrombosis	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	1	1	..	..
B. Other embolism and thrombosis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
83. Diseases of the veins :—																						
A. Phlebitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Varix	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Pylephlebitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
D. Varicocele	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
84. A. Status lymphaticus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Other diseases of the lymphatic system	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
85. A. Functional disease of the heart	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
B. Epistaxis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Other diseases of the circulatory system	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
IV.—DISEASES OF THE RESPIRATORY SYSTEM.																						
86. Diseases of the nasal fossæ	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
87. A. Laryngismus stridulus	1	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
B. Laryngitis	2	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..
C. Other diseases of the larynx	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
88. Diseases of the thyroid body	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE 1.—CONTINUED.

CAUSES OF DEATH.	All Ages.	AGES AT DEATH.																				55 to 60
		0-3 Months.	3-6 Months.	6-12 Months.	Total under 1 year.	1-	2-	3-	4-	Total under 5 years.	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	85 and upwards.	
89 & 90. A. Bronchiectasis, Bronchial catarrh, etc.	3	..	1	..	1	..	..	..	..	1	..	..	..	..	..	2	..	..	..	..	..	..
B. Other bronchitis	248	22	23	35	80	26	7	6	2	121	4	2	3	..	4	7	12	24	45	21	5	10
91. Broncho-pneumonia	130	17	8	26	51	30	8	7	1	97	5	..	..	..	4	6	3	1	11	3	..	1
92. A. Lobar pneumonia	19	..	..	1	1	..	..	1	..	2	1	..	1	2	2	6	2	3	..	..	..	2
B. Pneumonia (type not stated)	81	2	4	4	10	5	4	1	..	20	4	3	5	5	7	10	12	6	5	4	..	4
93. A. Empyema	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Other pleurisy	3	..	..	..	..	..	..	1	..	1	..	..	..	..	..	1	..	..	1	..	..	..
94. A. Pulmonary apoplexy and infarction	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Pulmonary œdena and congestion	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Hypostatic pneumonia......	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
D. Collapse of lung (3 months and over)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
95. Gangrene of the lung	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
96. Asthma	8	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	3	3	..	2
97. Pulmonary emphysema	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
98. A. Fibroid disease of lung......	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..
B. Other diseases of the respiratory system........	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
V.—DISEASES OF THE DIGESTIVE SYSTEM.																						
99. A. Diseases of the teeth & gums	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Thrush, Aphthous stomatitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Parotitis	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
D. Other diseases of the mouth and annexa............	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

100. A. Tonsillitis	2	..	..	..	..	..	..	2	..	2	..	..	..	..	..	..	..	..	..	..	..	..
B. Ludwig's angina	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Other diseases of the pharynx	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
101. Diseases of œsophagus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
102. Perforating ulcer of stomach	6	..	..	..	..	..	..	..	..	..	..	..	2	..	1	2	..	..	1	..	..	..
103. A. Inflammation of stomach	23	4	1	3	8	..	2	..	..	10	2	..	..	1	1	2	1	3	..	3	..	..
B. Other diseases of stomach	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
104 & 105. A. Infective enteritis	6	1	..	3	4	1	1	..	..	6	..	..	..	..	..	..	..	..	..	..	..	..
B. Diarrhœa—Not returned as infective	16	4	3	4	11	4	..	..	..	15	..	..	..	..	..	..	..	1	..	..	..	..
C. Enteritis—Not returned as infective	11	1	3	2	6	1	..	..	..	7	2	..	..	..	..	1	..	1	..	..	..	..
D. Gastro-enteritis—Not returned as infective	47	8	11	14	33	7	1	..	..	41	..	..	1	..	..	..	1	..	2	1	1	..
E. Dyspepsia, under 2 years	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
F. Colic	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
G. Ulceration of intestines	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
H. Duodenal ulcer	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
106. Ankylostomiasis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
107. Other intestinal parasites	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
108. Appendicitis	6	..	..	..	..	..	..	..	..	..	1	..	1	1	1	1	1	..	..	..	..	..
109. A. Hernia	10	2	..	..	2	..	..	..	..	2	..	..	..	..	..	1	..	3	3	..	1	..
B. Intestinal obstruction	12	2	1	4	7	..	..	..	..	7	..	1	..	..	..	1	..	1	1	1	..	1
110. Other diseases of the intestines	5	2	..	..	2	..	..	..	..	2	..	..	..	..	..	2	..	..	1	..	..	..
111. Acute yellow atrophy of liver	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
112. Hydatid of liver	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
113. A. Cirrhosis of the liver (not returned as alcoholic)	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	..	..	..	..	..
B. Cirrhosis of the liver (returned as alcoholic)	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
C. Other diseases of liver and gall bladder	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
114. Biliary calculi	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
115. Other diseases of the liver	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
116. A. Infarction of spleen	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Other diseases of the spleen	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE 1.—CONTINUED.

CAUSES OF DEATH.	All Ages.	AGES AT DEATH.																				55 to 60
		0-3 Months.	3-6 Months.	6-12 Months.	Total under 1 year.	1-	2-	3-	4-	Total under 5 years	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	85 and upwards.	
117. Peritonitis (cause unstated)	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
118. A. Abdominal abscess, Subphrenic abscess	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Other diseases of the digestive system	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
VI.—NON-VENEREAL DISEASES OF THE GENITO-URINARY SYSTEM AND ANNEXA.																						
119. Acute nephritis................	13	..	..	..	..	..	2	..	1	3	..	..	..	2	1	2	3	2	..	..	..	1
120. A. Bright's disease...........	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	2	5	3	2	..	3
B. Nephritis (unqualified), 10 years and over, and Uræmia	9	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	2	1	2	1	..	1
121. Chyluria......................	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
122. A. Abscess of kidney	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Cystic disease.............	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Suppression of urine	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
D. Other diseases of the kidney and annexa	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..
123. Calculi of the urinary passages ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
124. Diseases of the bladder	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
125. A. Perineal abscess...........	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Other diseases of urethra, &c.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
126. Diseases of the prostate	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
127. Non-venereal diseases of male genital organs	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
128. A. Menorrhagia (non-puerperal)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Other uterine hæmorrhage (non-puerperal)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

129.	Uterine tumour (non-cancerous)	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
130.	A. Disorders of menstruation (except menorrhagia)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	B. Other diseases of the uterus	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
131.	Ovarian cyst, tumour (non-cancerous)	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
132.	A. Diseases of ovary (excluding ovarian tumour)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	B. Other diseases of the female genital organs	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
133.	Non-puerperal diseases of the breast (non-cancerous)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
VII.—THE PUERPERAL STATE.																							
134.	A. Abortion	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
	B. Hæmorrhage of pregnancy	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	C. Uncontrollable vomiting	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	D. Ectopic gestation	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
	E. Other accidents of pregnancy	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
135.	Puerperal hæmorrhage	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..
136.	Other accidents of childbirth	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
137.	Puerperal fever	3	..	..	..	..	..	..	..	..	..	..	..	..	1	2	..	..	..	..	..	..	..
138.	A. Puerperal nephritis & uræmia	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
	B. Puerperal albuminuria and Bright's disease	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	C. Puerperal convulsions	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
139.	A. Puerperal phlegmasia alba dolens, and phlebitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	B. Puerperal embolism & sudden death	2	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..
140.	Puerperal insanity	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
141.	Puerperal diseases of the breast	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
VIII.—DISEASES OF THE SKIN AND OF THE CELLULAR TISSUE.																							
142.	A. Senile gangrene	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	1	..	..
	B. Noma, Gangrene of mouth	1	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
	C. Noma pudendi	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	D. Other gangrene	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE 1.—CONTINUED.

Causes of Death.	All Ages.	Ages at Death. 0-3 Months.	3-6 Months.	6-12 Months.	Total under 1 year.	1-	2-	3-	4-	Total under 5 years.	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	85 and upwards.	55 to 60
143. Carbuncle, boil	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
144. A. Phlegmon	1	1	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
B. Acute abscess	1	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..
145. A. Ulcer, Bedsore	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B. Eczema	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Pemphigus	1	1	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
D. Other diseases of integumentary system	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
IX.—DISEASES OF THE BONES & OF THE ORGANS OF LOCOMOTION.																						
146. Diseases of the bones	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
147. Diseases of the joints	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
148. Amputation	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
149. Other diseases of locomotor system	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
X.—MALFORMATION.																						
150. A. Congenital hydrocephalus	1	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..
B. Phimosis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
C. Congenital malformation of heart	4	2	..	..	2	1	..	..	..	3	..	1	..	..	..	..	..	..	..	..	..	..
D. Other congenital malformations	9	8	..	1	9	..	..	..	..	9	..	..	..	..	..	..	..	..	..	..	..	..
XI.—DISEASES OF EARLY INFANCY.																						
151. A. Premature birth	109	106	2	1	109	..	..	..	..	109	..	..	..	..	..	..	..	..	..	..	..	..
B. Infantile atrophy, debility, and marasmus	43	38	4	1	43	..	..	..	..	43	..	..	..	..	..	..	..	..	..	..	..	..

	C. Icterus neonatorum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	D. Sclerema and œdema neonatorum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	E. Want of breast milk	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
152.	A. Diseases of umbilicus, etc.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	B. Atelectasis	10	10	..	..	10	..	..	..	..	10	..	..	..	..	..	..	..	..	..	..	..	..
	C. Injuries at birth	3	3	..	..	3	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..
	D. Cyanosis neonatorum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
153.	Lack of care	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	XII.—OLD AGE.																						
154.	A. Senile dementia	10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	6	3	..	..
	B. Senile decay	84	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	22	47	15	..
	XIII.—AFFECTIONS PRODUCED BY EXTERNAL CAUSES.																						
155.	Suicide by poison	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
156.	,, asphyxia	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
157.	,, hanging or strangulation	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
158.	,, drowning	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
159.	,, firearms	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
160.	,, cutting or piercing instruments	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
161.	,, jumping from high place	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
162.	,, crushing	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
163.	Other suicides	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
164.	Poisoning by food	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
165.	Other acute poisonings	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
166.	Conflagration	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
167.	Burns (conflagration excepted	8	..	..	..	..	1	2	..	1	4	..	..	..	..	..	1	..	2	1	..	..	..
168.	Absorption of deleterious gases (conflagration excepted)	2	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..
169.	Accidental drowning	12	..	..	..	..	..	..	..	..	..	..	..	..	2	6	3	1	..	..	..	..	..
170.	Injury by firearms	3	..	..	..	..	..	..	..	1	1	..	1	..	..	1	..	..	..	..	..	..	..
171.	,, cutting or piercing instruments	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE 1.—Continued.

Causes of Death.	All Ages.	Ages at Death.																				55 to 60
		0-3 Months.	3-6 Months.	6-12 Months.	Total under 1 year.	1-	2-	3-	4-	Total under 5 years.	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	85 and upwards.	
172. Injury by fall	15	..	..	..	..	..	..	..	..	..	1	2	1	1	1	..	2	4	2	1	..	1
173. ,, in mines and quarries	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
174. ,, by machines	4	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	1	1	..	..	..	..
175. ,, other crushing (vehicles, railways, landslides, &c.)	8	..	..	..	..	..	..	1	..	1	1	2	..	1	..	..	1	1	..	1	..	1
176. ,, animals	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
177. Starvation	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
178. Excessive cold	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
179. Effects of heat	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
180. Lightning	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
181. Electricity (lightning excepted)	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..
182. Homicide by firearms	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
183. ,, cutting or piercing instruments	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
184. ,, other means	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
185. Fractures (cause not specified)	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
186. Other violence	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..
XIV.—ILL-DEFINED CAUSES.																						
187. Dropsy	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
188. A. Syncope (aged 1 year and under 70)	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	1	..	..	..
B. Sudden death (not otherwise defined)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
189. A. Heart failure (aged 1 year and under 70)	9	..	..	..	..	..	..	..	..	..	..	..	..	..	2	3	3	..	1	..	..	..
B. Atrophy, debility, marasmus (aged 1 year & under 70)	5	..	..	..	..	2	..	..	..	2	..	..	..	..	..	..	1	..	2	..	..	..
C. Teething	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
D. Pyrexia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
E. Other ill-defined deaths	3	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	1	..	..	..	..	..
F. Cause not specified	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
Totals	2000	268	85	126	479	108	40	32	11	670	57	40	52	72	140	163	176	199	257	143	31	82

TABLE 2.—DEATHS DURING 1920 : SEASONAL AND WARD DISTRIBUTION.

CAUSES OF DEATH.	Total.	YEAR, 1920.				WARDS.													
		First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Shields	Beacon.	St Hilda.	Hadrian.	Holborn.	Laygate.	Victoria.	Bents.	Rekendyke.	Westoe.	Deans.	Tyne Dock.	Simonside.	West Park.
All Causes { Certified	1920	588	457	403	472	157	111	115	142	164	139	148	96	160	110	167	157	129	125
All Causes { Uncertified	80	26	15	19	20	9	6	4	9	6	11	5	2	3	2	8	5	6	4
Enteric fever	5	2	2	1	...	...	...	..	1	...	...	...	...	...	1	3	...	...	...
Smallpox	1*	...	1	..	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	...	...	...	. .	...	...	...	...	...	.	...	...
Scarlet fever	1	1	...	...	...	...	1	..	...	...	.	...	...	...	...	...	...	...	...
Whooping cough	17	...	...	5	12	2	1	1	1	...	2	...	2	1	...	...	4	1	2
Diphtheria and croup	13	5	2	2	4	1	...	...	1	1	...	1	1	...	..	2	1	...	5
Influenza	96	47	21	9	19	4	3	2	11	5	6	7	2	8	5	14	12	13	4
Erysipelas	3	1	1	1	...	...	1	...	...	...	...	..	...	...	...	..	...	2	...
Phthisis (pulmonary tuberculosis)	156	44	48	33	31	17	11	9	10	23	11	13	9	13	7	10	13	6	4
Tuberculous meningitis	21	7	7	3	4	...	..	2	2	5	...	2	...	3	1	3	...	2	1
Other tuberculous diseases	27	9	9	4	5	3	1	3	2	3	...	2	1	1	1	1	2	4	3
Cancer, malignant disease	105	24	25	29	27	6	6	6	5	8	5	8	6	10	6	10	13	8	8
Rheumatic fever...	11	6	1	3	1	1	1	1	1	..	...	3	..	1	2	...	1	...	...
Meningitis	15	7	1	6	1	...	1	...	3	1	1	2	...	2	2	1	1	1	...
Organic heart disease	151	38	37	39	37	10	6	4	13	20	3	13	12	13	10	17	9	13	8
Bronchitis	251	82	56	48	65	32	12	20	18	21	30	15	7	29	10	17	17	12	11
Pneumonia (all forms)	230	104	47	19	60	16	13	15	18	19	26	19	12	23	5	27	20	5	12
Other diseases of respiratory organs	17	7	5	1	4	2	3	...	2	1	...	...	...	..	2	3	2	1	1
Diarrhœa and enteritis	82	17	14	31	20	10	2	9	2	11	8	8	3	6	3	7	4	4	5
Appendicitis and typhlitis	6	2	1	3	...	...	3	...	...	..	...	...	...	..	...	1	...	1	1
Cirrhosis of liver	5	1	1	...	3	...	...	1	. .	2	...	.	...	...	...	...	...	2	...
Alcoholism	3	2	...	1	...	...	...	1	1	...	..	...	...	...	...	...	1	..	...
Nephritis and bright's disease	38	10	11	10	7	1	2	5	1	2	3	3	2	2	1	4	3	6	3
Puerperal fever	3	1	1	...	1	...	...	...	...	1	...	1	...	...	...	...	1	...	...
Other accidents and diseases of pregnancy and parturition	9	2	2			...	2	...	...	1	1	2	1	1	1	...	...	...	...
Congenital debility and malformation, including premature birth	166	48	38	42	38	15	9	5	15	17	16	14	11	12	11	16	8	11	6
Violent deaths, excluding suicide	61	23	12	15	11	4	5	3	2	6	5	4	3	6	5	3	2	3	6
Suicide	4	2	2	...	...	1	1	...	..	...	...	...	...	1	...	1	...	...	...
Other defined diseases...	482	115	125	109	133	39	32	32	38	22	31	34	25	31	37	34	42	39	46
Diseases ill-defined or unknown	21	7	2	5	7	2	1	...	4	1	2	1	1	...	2	1	2	1	3
Total	2000	614	472	422	492	166	117	119	151	170	150	153	98	163	112	175	162	135	129

* Transferable death ; death occurred in the Port of London Hospital.

TABLE 3.—DEATHS DURING 1920 FROM INFLUENZA AND PNEUMONIA.

CLASSIFIED ACCORDING TO AGE AND SEX.

Causes of Death.	0—	5—	10—	15—	20—	25—	35—	45—	55—	65—	75—	85—	Total.	Male.	Female.
Influenza	5	5	5	3	8	7	3	7	6	4	2	1	56	26	30
Influenzal pneumonia ..	3	..	1	..	3	8	8	8	5	4	..	..	40	27	13
Other pneumonia	119	10	3	6	7	13	22	17	10	16	7	..	230	131	99
Total	127	15	9	9	18	28	33	32	21	24	9	1	326	184	142

NOTE.—The seasonal distribution of these deaths is shown in Table 2.

TABLE 4.—DEATHS DURING 1920 IN INSTITUTIONS, UNCERTIFIED DEATHS, etc.

CAUSES OF DEATH.	Deaths in Institutions in the Borough.		Deaths of S.S. residents in Institutions outside the Borough.		Deaths Certified by Coroner.		Uncertified Deaths.		Transferable Deaths,	
	Residents	Non-Residents	In S.S. Union Poor Law Institution.	Other Institutions.	Residents	Non-Residents.	Residents	Non-Residents.	Inward.	Outward.
Enteric fever	3	...	...	...	...	...	...	...	...	...
Smallpox	...	...	...	1	..	...	...	...	1	...
Measles	...	...	...	...	..	...	...	...	...	...
Scarlet fever	1	...	...	...	...	...	...	...	...	...
Whooping cough	...	...	...	...	...	...	...	1	...	1
Diphtheria and croup	1	...	..	...	...	...	..	...	1	...
Influenza	1	...	3	...	2	...	1	...	3	1
Erysipelas	...	...	...	...	2	...	...	...	...	...
Phthisis (pulmonary tuberculosis)	2	...	24	3	...	...	1	...	29	...
Tuberculosis meningitis	...	...	1	...	...	...	...	..	1	...
Other tuberculous diseases	6	...	2	1	...	...	...	...	3	...
Cancer, malignant disease	3	...	12	6	1	...	...	...	19	...
Rheumatic fever	...	...	1	1	...	...	...	..	2	...
Meningitis	1	...	...	...	...	...	...	...	...	...
Organic heart disease	...	...	23	2	2	...	13	...	26	2
Bronchitis	1	...	36	1	1	...	4	...	37	2
Pneumonia (all forms)	1	1	16	5	...	...	2	...	21	3
Other diseases of respiratory organs	1	...	...	...	...	...	1	...	...	...
Diarrhoea and enteritis	...	...	10	2	1	...	2	...	12	1
Appendicitis and typhlitis	3	1	...	...	...	...	...	...	1	1
Cirrhosis of liver	...	...	...	1	...	...	...	...	1	...
Alcoholism	...	...	1	...	2	...	...	..	1	...
Nephritis and Bright's disease	1	...	2	...	...	...	...	...	3	..
Puerperal fever	...	...	1	...	...	...	...	...	1	...
Other accidents and diseases of pregnancy and parturition	1	...	...	...	...	...	...	...	...	...
Congenital debility and malformation including premature birth	1	...	2	...	...	...	16	...	2	...
Violent deaths, excluding suicide	16	8	1	3	60	10	...	...	16	10
Suicide	...	...	...	...	4	...	...	...	2	...
Other defined diseases	24	1	86	14	3	1	29	...	102	4
Diseases ill-defined or unknown	...	...	3	...	3	1	11	..	4	1
Total	67	11	224	40	81	12	80	1	288	26

TABLE 5.—POPULATION, BIRTHS, AND DEATHS FOR 1920 AND PREVIOUS YEARS.

(Formerly L.G.B. Table 1.)

Year.	Population, estimated to middle of each year.	Births.			Total Deaths registered in the Borough.		Transferable Deaths		Net Deaths belonging to the Borough.			
		Uncorrected Number.	Net.				Of Non-Residents registered in the Borough.	Of Residents not registered in the Borough.	Under 1 Year of Age.		At All Ages.	
			Number.	Rate.	Number.	Rate.			Number.	Rate per 1,000 Net Births.	Number.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1911	108,844	3,279	3,300	30 3	1,687	15.5	13	216	484	147	1,890	17.4
1912	109,678	3,322	3,352	30.6	1,550	14.1	18	220	356	106	1,752	16.0
1913	110,513	3,478	3,495	31.1	1,803	16.1	21	229	408	117	2,011	17.9
1914	110,604	3,503	3,517	31.8	1,753	15.9	15	217	482	137	1,955	17.7
1915	109,855	3,265	3,275	29.6	1,871	17.0	28	287	468	143	2,130	19.4
1916	109,332	3,091	3,093	26.0	1,649	14.9	44	257	369	119	1,862	17.0
1917	106,500	2,699	2,714	22.8	1,750	16.4	33	271	362	133	1,988	18.6
1918	105,659	2,979	3,005	25.4	2,122	20.1	41	313	359	118	2,394	22.6
1919	111,502	3,104	3,130	26.9	1,687	15.1	37	242	370	118	1.892	17.0
1920	115,945	3,922	3,966	34.2	1,738	15.0	26	288	479	121	2,000	17.2

Notes.—(a) The rates in Columns 5, 7, and 13 are calculated per 1,000 of the population.

(b) The populations for the years 1915 onwards are the Registrar General's estimates for the *civilian* population.

For each of the years 1916, 1917, 1918, and 1919, the Registrar-General has supplied two estimates of population :—

(1) for calculating birth-rates,

(2) ,, ,, death-rates.

The birth-rate population for each of those years was respectively, 118, 955; 118, 717; 118, 387; and 116, 152. The *death-rate* (or *civilian*) population is shown in the table above.

(c) " **Transferable Deaths " are deaths of persons who, having a fixed or usual residence in England or Wales, die in a district other than that in which they resided.**

TABLE 6.—BIRTH-RATES, INFANT MORTALITY RATES, AND DEATH-RATES FROM VARIOUS CAUSES, 1871-1920.

YEAR.	Estimated Population.	Birth-rate.	Death-rate.	PRINCIPAL EPIDEMIC DISEASES.								Phthisis.	Other Tuberculous Diseases.	Cancer.	Bronchitis.	Pneumonia.	Influenza.	Deaths under 1 year per 1,000 births.
				Total.	Smallpox.	Measles.	Scarlet Fever.	‡ Diphtheria.	Whooping Cough.	" Fever."	X Diarrhœa.							
Mean 1871-1880	50,580	43.1	25.5	6.0	.86	.42	1.44	.12	.78	.79	1.59	1.91	—	—	—	—	—	164
Mean 1881-1890	66.520	38.8	20.5	2.3	.01	.34	.45	.10	.44	.19	.78	1.84	—	—	—	—	—	140
Mean 1891-1900	87.022	36.1	20.1	2.45	.00	.44	.22	.11	.46	.28	.93	1.60	1.00	.63	2.00	1.47	.29	166
1901	97,800	36.8	20.6	3.36	..	.68	.60	.14	.10	.22	1.60	1.63	.71	.68	1.35	1.19	.18	169
1902*	101,801	36.9	19.8	2.66	.04	.93	.38	.06	1.02	.06	.17	1.81	.66	.65	1.36	1.54	.12	149
1903	102,561	35.4	17.6	1.04	.01	.15	.12	.16	.03	.10	.49	1.72	.73	.71	1.70	1.37	.17	132
1904	103,327	35.9	18.9	1.84	.07	.27	.08	.12	.62	.09	.60	1.59	.85	.65	1.69	1.42	.26	144
1905	104,099	33.6	17.1	2.07	.04	.23	.06	.23	.61	.22	.68	1.21	.62	.68	1.56	1.31	.19	145
1906	104,876	33.7	19.0	2.94	..	1.04	.06	.29	.37	.09	1.10	1.58	.72	.68	1.39	1.35	.24	150
1907	105,659	31.0	18.0	1.53	..	.46	.09	.18	.51	.04	.26	1.69	.75	.73	1.43	1.33	.33	133
1908	106,448	32.7	16.8	1.98	..	.30	.08	.22	.46	.08	.85	1.29	.67	.82	1.24	1.04	.37	133
1909	107,244	31.6	16.6	1.50	..	.35	.18	.19	.34	.04	.41	1.21	.63	.73	1.27	1.13	.29	138
1910	108,045	31.5	15.2	1.50	.02	.16	.06	.06	.59	.06	.56	1.25	.70	.87	1.10	1.17	.29	111
Mean 1901-1910	104,186	33.9	17.9	2.03	.02	.45	.17	.16	.47	.10	.66	1.50	.71	.72	1.41	1.28	.25	140
1911	108,844	30.3	17.4	2.07	..	.37	.01	.08	.21	.04	1.36	1.19	.58	.82	1.33	1.56	.26	147
1912	109,678	30.6	16.0	1.39	..	.58	.05	.05	.46	.05	.18	1.53	.39	.71	1.50	1.25	.22	106
1913	110,513	31.1	17.9	1.59	..	.51	.28	.07	.10	.06	.57	1.33	.66	.90	1.48	1.28	.36	117
1914	110,604	31.8	17.7	2.23	..	.27	.22	.14	.52	.14	.95	1.31	.58	.84	1.49	1.67	.21	137
1915†	109,855	29.6	19.4	1.84	..	.46	.17	.07	.41	.02	.70	1.67	.67	1.07	2.21	2.07	.18	143
1916	109,332	26.0	17.0	0.83	.01	.07	.08	.11	.19	.01	.36	1.73	.68	1.01	1.81	1.50	.09	119
1917	106,500	22.8	18.6	1.74	..	1.14	.01	.07	.12	.01	.38	1.96	.71	.96	1.83	1.81	.07	133
1918	105,659	25.4	22.6	1.11	..	..	.02	.11	.47	..	.51	1.93	.61	.91	1.85	2.01	4.36	118
1919	111,502	26.9	17.0	1.04	..	.37	.04	.09	.01	.01	.53	1.30	.63	.86	1.53	1.56	1.84	118
1920	115,945	34.2	17.2	0.90	.01	..	.01	.11	.15	.04	.58	1.35	.41	.91	2.16	1.98	.83	121
Mean 1911-1920	109,843	28.9	18.1	1.47	.00	.38	.09	.09	.26	.04	.61	1.53	.59	.90	1.72	1.67	.84	126
Mean 1871-1920	83,630	36.1	20.4	2.78	.10	.41	.47	.12	.48	.28	.91	1.68	—	—	—	—	—	147

* The Borough was extended, November. 1901.
‡ Since 1891, Membranous Croup has been included under Diphtheria.
X Diarrhœa and Enteritis (under 2 years of age) since 1905.
†See note (B) to Table 5, as regards population since 1915.

TABLE 7.—DEATHS DURING 1920 OF INFANTS UNDER ONE YEAR: CAUSES AND AGES.

Causes of Death.		Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 4 Weeks.	1-3 Months.	3-6 Months.	6-9 Months.	9-12 Months.	Total Deaths under 1 Year.
All Causes :	Certified	96	36	21	26	179	69	83	76	50	457
	Uncertified	17	..	..	..	17	3	2	..	..	22
Smallpox		..	..	..	..	..	..	..	..	..	..
Chickenpox		..	..	..	..	..	..	..	1	..	1
Measles		..	..	..	..	..	..	..	..	..	..
Scarlet fever		..	..	..	..	..	..	..	..	..	..
Whooping cough		..	..	..	..	..	1	3	3	4	11
Diphtheria and croup		..	..	..	..	..	..	..	..	..	..
Erysipelas		..	..	..	..	..	..	..	1	..	1
Tuberculous meningitis		..	..	..	..	..	..	..	..	1	1
Abdominal tuberculosis		..	..	..	..	..	1	1	..	..	2
Other tuberculous diseases		..	..	..	..	..	..	..	..	1	1
Meningitis (*not tuberculous*)		1	1	..	..	2	1	1	..	..	4
Convulsions		3	1	2	1	7	8	14	13	2	44
Laryngitis		..	..	..	..	..	..	..	..	..	..
Bronchitis		..	2	2	1	5	17	24	19	16	81
Pneumonia (all forms)		..	3	1	3	7	12	12	18	13	62
Diarrhoea		..	..	..	2	2	2	3	1	3	11
Enteritis		..	..	1	2	3	7	14	12	7	43
Gastritis		..	..	..	1	1	3	1	3	..	8
Syphilis		2	1	1	1	5	4	3	..	..	12
Rickets		..	..	..	..	..	..	..	..	..	..
Suffocation, overlying		..	..	..	..	..	..	..	..	..	..
Injury at birth		2	1	..	..	3	..	..	..	..	3
Atelectasis		6	2	..	2	10	..	..	..	..	10
Congenital malformations		5	2	1	1	9	1	..	1	..	11
Premature birth		72	13	9	6	100	6	2	1	..	109
Atrophy, debility & marasmus		20	10	2	4	36	2	4	1	..	43
Other causes		2	..	2	2	6	7	3	2	3	21
Total		113	36	21	26	196	72	85	76	50	479

Net Births in the Year :—		Net Deaths in the Year :—	
Legitimate	3,793	Legitimate Infants	434
Illegitimate	173	Illegitimate Infants ..	45

TABLE 8.—DEATHS DURING 1920 OF INFANTS UNDER ONE YEAR: CAUSES AND WARD DISTRIBUTION.

CAUSES OF DEATH.	WARDS.														Total.
	Shields	Beacon	St Hilda.	Hadrian	Holborn	Laygate.	Victoria.	Bents	Rekendyke.	Westoe	Deans	Tyne Dock.	Simonside.	West Park.	
ALL CAUSES—															
Certified	49	23	28	35	41	47	34	19	36	21	33	39	29	23	457
Uncertified	3	2	1	3	1	4	1	1	...	...	1	1	3	1	22
Smallpox	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...
Chickenpox	...	1	...	...	...	...	...	..	...	...	...	...	...	...	1
Measles	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet fever	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...
Whooping cough	2	...	...	1	...	1	...	2	1	...	...	1	1	2	11
Diphtheria and croup	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...
Erysipelas	...	..	...	...	...	...	...	...	...	...	...	..	1	...	1
Tuberculous meningitis	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Abdominal tuberculosis	...	...	1	1	...	...	...	...	...	...	...	..	..	...	2
Other tuberculous diseases	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Meningitis (*not tuberculous*)	...	...	...	1	1	1	...	...	...	...	...	1	...	...	4
Convulsions	3	1	3	3	...	3	1	...	3	1	2	14	4	6	44
Laryngitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bronchitis	14	3	6	5	7	11	3	3	8	3	4	7	6	1	81
Pneumonia (all forms)	1	5	6	4	3	11	6	3	6	1	7	4	2	3	62
Diarrhoea	1	...	1	...	4	3	...	...	...	1	...	...	1	...	11
Enteritis	8	2	4	2	4	2	6	...	3	1	3	2	3	3	43
Gastritis	1	...	1	1	1	...	2	...	...	...	...	1	...	1	8
Syphilis	4	...	1	2	1	2	...	...	...	1	1	...	...	...	12
Rickets	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Suffocation, overlying	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...
Injury at birth	...	...	...	...	1	...	1	...	...	...	...	...	1	...	3
Atelectasis	1	...	...	2	1	...	...	1	...	..	1	2	...	2	10
Congenital malformation	...		...	...	2	...	1	4	1	1	...	...	1	1	11
Premature birth	15	8	5	12	7	11	9	7	5	8	12	3	5	2	109
Atrophy, debility and marasmus	...	1	...	3	8	4	4	...	6	2	3	5	4	3	43
Other causes	2	4	1	1	1	2	2	...	3	2	1	...	2	...	21
Total Deaths under one year	52	25	29	38	42	51	35	20	36	21	34	40	32	24	479
Number of Births*	253	261	207	266	243	350	385	179	314	210	392	353	244	261	3908
Infant Mortality Rate*	206	96	140	143	173	146	91	111	115	100	87	113	131	96	123
Total Deaths at all ages	166	117	119	151	170	150	153	98	163	112	175	162	135	129	2000

* The births dealt with in this table are (*a*) 2874 live births notified under the Notification of Births Acts, and (*b*) 1034 registered and not previously notified. Elsewhere in this report the Registrar-General's figures of births registered during the calendar year have been used for the calculation of birth-rates.

TABLE 9.—SUMMARY FOR 1911 TO 1920 OF DEATHS OF INFANTS UNDER ONE YEAR.—AGES AND CAUSES.

Causes of Death.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 4 Weeks.	1-3 Months.	3-6 Months.	6-9 Months.	9-12 Months.	Total Deaths under 1 Year.
All Causes : Certified	863	230	162	143	1398	668	664	587	574	3891
Uncertified	110	5	4	4	123	50	32	24	17	246
Smallpox	..	..	..	..	..	..	..	..	..	..
Chickenpox	..	..	..	..	..	..	..	1	1	2
Measles	..	..	..	..	..	..	4	20	49	73
Scarlet fever	..	..	..	..	..	..	..	..	1	1
Whooping cough	1	..	1	2	4	25	17	32	40	118
Diphtheria and croup	..	..	..	..	..	..	..	2	4	6
Erysipelas	..	1	..	1	2	..	..	2	..	4
Tuberculous meningitis	..	..	..	..	..	3	4	6	7	20
Abdominal tuberculosis	..	..	..	..	..	1	10	11	14	37
Other tuberculous diseases	..	..	..	..	..	1	6	4	9	19
Meningitis (*not tuberculous*)	1	1	..	..	2	5	11	8	6	32
Convulsions	72	38	23	12	145	102	78	84	55	464
Laryngitis	..	..	..	..	..	..	2	2	4	8
Bronchitis	1	20	14	14	49	131	163	126	103	572
Pneumonia (all forms)	3	5	4	6	18	59	79	112	126	394
Diarrhoea	..	1	3	4	8	67	106	74	66	321
Enteritis	2	2	2	6	12	41	60	43	35	191
Gastritis	1	2	..	5	8	16	14	13	8	59
Syphilis	7	3	8	6	24	26	20	1	4	75
Rickets	..	..	..	..	..	..	1	1	..	2
Suffocation, overlying	2	4	2	1	9	6	3	..	..	18
Injury at birth	18	1	..	..	19	..	..	..	..	19
Atelectasis	34	5	1	2	42	..	..	..	..	42
Congenital malformations	27	10	5	8	50	13	8	7	1	79
Premature birth	543	83	54	42	722	59	10	1	2	794
Atrophy, debility & marasmus	245	54	40	32	371	129	63	24	19	606
Other causes	16	5	9	6	36	34	37	37	37	181
Total	973	235	166	147	1521	718	696	611	591	4137

TABLE 10.—SUMMARY FOR 1911 TO 1920 OF DEATHS OF INFANTS UNDER ONE YEAR.

CAUSES AND WARD DISTRIBUTION.

CAUSES OF DEATH.	Shields.	Beacon.	St. Hilda.	Hadrian.	Holborn.	Laygate.	Victoria.	Bents.	Rekendyke.	Westoe.	Deans.	Tyne Dock.	Simonside.	West Park.	Unknown.	Total.
All Causes { Certified	312	249	200	218	314	358	385	137	330	162	373	378	265	206	3	3890
All Causes { Uncertified	27	13	15	8	15	39	28	8	27	7	22	20	13	5	...	247
Smallpox	...	..	...	...	..	..	...	...	...	...	...	...	..	...	...	...
Chickenpox	1	1	...	...	..	..	...	...	...	...	...	...	...	...	...	2
Measles	3	6	3	3	6	14	7	1	7	2	5	9	1	6	..	73
Scarlet fever	..	..	...	...	..	...	...	...	...	...	...	1	...	...	...	1
Whooping cough	8	7	4	7	8	11	8	5	6	7	13	13	13	8	...	118
Diphtheria and croup	..	2	1	1	..	..	...	...	...	2	...	..	...	...	...	6
Erysipelas	..	1	1	...	..	..	...	...	...	..	...	1	1	...	...	4
Tuberculous meningitis	...	3	1	4	2	1	2	...	1	3	...	2	1	..	...	20
Abdominal tuberculosis	2	3	3	3	4	3	5	...	2	2	1	5	2	2	...	37
Other tuberculous diseases	3	2	1	1	2	...	4	1	...	..	...	3	1	1	...	19
Meningitis (not tuberculous)	2	2	...	2	2	2	4	...	4	2	6	2	1	3	...	32
Convulsions	36	27	19	13	26	47	42	20	42	18	57	61	34	24	...	464
Laryngitis	...	1	1	...	..	1	...	...	...	...	2	1	...	2	..	8
Bronchitis	56	31	27	29	66	76	42	14	64	9	58	47	32	21	...	572
Pneumonia (all forms)	25	27	26	25	27	36	45	14	28	14	34	46	28	19	...	394
Diarrhœa	13	14	15	14	40	26	33	11	32	9	28	32	33	21	...	321
Enteritis	22	6	16	11	17	14	23	3	12	6	11	23	17	10	...	191
Gastritis	6	4	4	5	2	4	5	1	6	1	...	11	5	5	...	59
Syphilis	14	7	7	7	4	8	10	1	2	4	3	5	2	1	...	75
Rickets	..	1	...	..	..	..	...	...	...	...	...	...	1	...	...	2
Suffication (overlying)	3	1	3	3	3	...	...	1	...	1	..	3	..	...	...	18
Injury at birth	1	..	1	..	3	2	4	...	...	3	2	2	1	...	...	19
Atelectasis	2	6	1	4	2	3	3	3	3	2	4	3	3	3	..	42
Congenital malformations	1	5	4	4	3	8	7	11	5	6	5	7	4	9	...	79
Premature birth	80	61	34	49	43	65	97	28	68	44	76	63	49	37	...	794
Atrophy, debility, and marasmus	51	31	31	33	57	59	56	18	60	24	73	44	35	34	..	606
Other causes	10	15	12	8	12	17	16	13	15	10	17	14	14	5	3	181
Total deaths under 1 year	339	262	215	226	329	397	413	145	357	169	395	398	278	211	3	4137
Births during 10 years	2180	2420	1575	2027	2021	2510	3312	1463	2786	2000	3554	3036	278	2158	83	33293
Infant mortality rate	156	108	137	111	163	158	124	99	128	84	111	131	128	98	...	126
Range of infant mortality rate	104-206	87-163	111-183	56-142	122-218	110-213	86-173	53-130	97-154	65-107	75-159	112-157	84-162	74-146	...	106-147

TABLE 11.—CASES OF INFECTIOUS DISEASE NOTIFIED, AND CASES REMOVED TO HOSPITAL, IN SOUTH SHIELDS DURING THE YEAR 1920, CLASSIFIED ACCORDING TO WARD AND AGE.

(Formerly L.G.B. Table II.)

Notifiable Diseases.	Cases notified in whole Borough.								Total Cases notified in each Ward.														No. of Cases removed to Hospital from each Ward.														
	At all Ages.	At following Ages—Years.																																			
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.	65 and upwards.	Shields.	Beacon.	St. Hilda.	Hadrian.	Holborn.	Laygate.	Victoria.	Bents.	Rekendyke.	Westoe.	Deans.	Tyne Dock.	Simonside.	West Park.	Shields.	Beacon.	St. Hilda.	Hadrian.	Holborn.	Laygate.	Victoria.	Bents.	Rekendyke.	Westoe.	Deans.	Tyne Dock.	Simonside.	West Park.	Totals.
Diphtheria (including membranous croup)	34	1	12	19	1	1	..	..	5	1	1	1	2	..	5	2	..	3	2	2	1	9	2	..	1	1	..	..	1	..	..	1	..	..	..	1	7
Erysipelas	28	2	..	1	1	13	10	1	2	4	1	3	..	1	3	2	2	2	3	..	2	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Scarlet fever	146	..	28	109	8	1	..	..	6	7	4	5	1	7	26	2	7	16	14	25	15	11	4	7	3	2	1	7	21	1	5	5	11	22	14	7	110
Enteric fever	10	..	..	1	6	2	1	..	..	..	3	..	..	..	..	..	1	2	3	..	..	1	..	..	3	..	..	..	..	..	1	2	1	..	..	1	8
Puerperal fever	4	..	..	..	2	2	..	..	..	..	..	..	..	..	1	1	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Encephalitis lethargica	4	..	1	..	1	..	2	..	..	1	..	..	..	..	..	..	..	..	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dysentery	5	..	..	..	..	2	3	..	..	2	..	1	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Malaria	14	..	..	..	5	7	2	..	1	3	..	..	..	..	1	2	2	2	3	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1
Pneumonia: primary	264	44	67	43	42	40	21	7	14	12	14	21	17	19	35	14	37	20	25	19	6	11	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. influenzal	60	1	4	4	12	22	13	4	3	6	5	6	2	3	10	3	4	5	4	5	3	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
Ophthalmia neonatorum	50	50	..	..	..	..	..	..	2	3	5	2	5	7	8	1	5	2	3	4	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pulmonary tuberculosis	270	..	8	80	61	99	21	1	27	12	24	11	27	24	27	9	26	8	21	29	8	17	..	..	1	..	1	2	..	2	7	..	4	2	..	1	20
Other forms of tuberculosis	90	4	21	44	10	9	2	..	4	7	7	6	7	8	7	3	10	3	9	10	2	7	1	..	..	..	..	..	1	2	..	..	..	1	..	..	5
Total	979	102	141	301	149	198	75	13	64	58	64	56	61	69	125	39	94	64	88	96	39	62	7	8	8	3	2	9	24	5	13	8	16	25	14	10	152

There were no cases of smallpox, cholera, plague, typhus fever, relapsing fever, continued fever, cerebro-spinal fever, poliomyelitis, polio encephalitis, or trench fever notified during the year.

The cases of tuberculosis removed to hospital are those admitted to the Deans Hospital only; cases admitted to other hospitals in the Borough, and to sanatoria outside the Borough have not been included. Naval and military cases are not included in this table.

TABLE 12.—SUMMARY OF REPORTS OF SANITARY INSPECTORS.

(a) VISITS.

NATURE OF VISITS.	W. Clark.	R. W. Weir.	R. Ayre.	W. Hill.	Totals.
General district inspection (including housing inspection, and inspection of underground rooms)	4,270	3,513	4,722	4,752	17,257
Inspection of works in progress......	882	338	827	283	2,330
Interviews and appointments	..	359	28	221	608
Investigation of complaints of nuisances	157	162	315	366	1,000
Testing drains	8	1	14	10	33
Smoke observations	..	..	6	..	6
Special Inspections of—					
Seamen's lodging houses	..	200	19	55	274
Common lodging houses	..	12	58	57	127
Houses-let-in-lodgings	..	..	..	..	..
Factories	91	..	1	1	93
Workshops (including bakehouses, etc.)	48	..	15	1	64
Workplaces (including fried fish shops, cafes, etc.)	122	..	133	3	258
Home-workers' premises	..	..	..	..	..
Van dwellings	..	1	2	..	3
Picture halls	25	22	4	2	53
Schools	..	..	..	..	..
Stables and allotment gardens ..	466	1,187	143	46	1,842
Piggeries	2	..	4	..	6
Re Rat repression	95	8	32	45	180
Other premises	..	..	20	16	36
Visits *re* cases of infectious disease—					
On notification of cases, on removal to hospital, or on disinfection of premises............	110	175	58	64	407
Re home-treated cases	10	57	21	20	108
Cases of tuberculosis	33	53	54	83	223
Contacts--smallpox	24	44	19	101	188
cholera	6	..	1	..	7
plague	..	..	1	..	1
Other infectious diseases	13	10	6	9	38
Taking samples with Food Inspector	144	..	..	..	144
Total Visits	6,506	6,142	6,503	6,135	25,286

NOTE.—Details of the visits paid by the Food Inspector and the Shops Inspector are given on pages 86 and 82 respectively.

TABLE 13.—SUMMARY OF REPORTS OF SANITARY INSPECTORS.
(b) NOTICES ISSUED.

	W. Clark.	R. W. Weir.	R. Ayre.	W. Hill.	Totals.
Preliminary Notices were served—					
(A.) On 526 Property Owners for—					
(1) Houses not kept in all respects reasonably fit for habitation—No. of houses......	66	43	55	133	297
No. of defects (including defective roofs, spouts, walls, floors, stairs, windows, doors, ranges, &c.)	115	143	78	281	617
(2) Seamen's Lodging Houses :					
defective roofs, spouts, etc.	..	..	..	7	7
,, yard paving	..	..	..	1	1
,, w.c. basin	..	..	..	1	1
absence of ashbin	..	..	..	1	1
(3) Nuisances caused by :					
choked or defective drains	9	5	23	25	62
defective or untrapped scullery waste pipes	7	5	3	22	37
defective scullery sinks	8	..	1	7	16
decayed woodwork around scullery sinks	2	..	1	6	9
defective w.c. cistern	1	..	4	3	8
choked or dilapidated Fowler closets	..	..	3	..	3
foul rainwater cistern	2	1	4	9	16
absence of refuse receptacle	..	..	2	4	6
other nuisances	..	..	..	..	..
(4) Houses without proper water supply	3	..	1	13	17
(5) ,, ,, sufficient closet accommodation	..	2	1	2	5
(6) ,, ,, ,, drain	..	..	..	1	1
(7) Yard paving defective	8	9	5	11	33
(8) Other offences	..	..	3	..	3
(9) Minor defects—					
defective privies (hatches, seats, etc.)	49	24	16	56	145
outbuildings in disrepair	54	42	18	110	224
other defects	13	7	8	24	52
(B.) On 360 tenants for nuisances caused by :					
dirty rooms	..	..	6	4	10
overcrowded rooms	..	..	1	..	1
dirty yards, privies, etc.	1	3	22	36	62
choked drains and w.c.'s	7	12	25	44	88
privies overflowing	1	5	6	13	25
keeping animals	..	..	8	14	22
accumulations of filth	..	1	7	11	19
other nuisances	1	..	..	..	1
(C.) On 67 persons responsible for undermentioned :					
Workshops : dirty rooms	..	..	1	..	1
Fried fish shops : dirty walls and ceilings	..	..	1	..	1
Cafe : dirty condition	..	..	1	..	1
Picture Hall : absence of sanitary convenience	..	1	..	..	1
choked drain	..	..	1	..	1
Stables : absence of manure pit	..	1	..	..	1
defective yard and floor	1	2	..	..	3
defective drainage	..	2	..	..	2
accumulation of manure	..	..	1	2	3
Allotments : to prevent accumulation of manure	56	..	..	..	56
(D.) On 3 persons responsible under Rats and Mice Act	3	..	..	..	3
Total defects, nuisances, etc.	341	265	251	708	1565
Statutory Notices issued to 46 Owners	86	22	5	5	118
,, ,, ,, 1 Occupier	..	..	1	..	1

TABLE 14.—SUMMARY OF REPORTS OF SANITARY INSPECTORS.

(c) STRUCTURAL IMPROVEMENTS EFFECTED.

Nature of Work.	W. Clark.	R. W. Weir.	R. Ayre.	W. Hill.	Totals.
Dwellings and Lodging Houses:					
rooms and cellars closed	..	..	6	..	6
rooms demolished	..	..	4	..	4
repairs to walls, floors, roofs, spouting, etc.	65	175	36	312	588
sites concreted	..	..	..	..	..
Drains: abolished	..	..	1	..	1
provided	4	4	..	4	12
relaid	4	1	12	5	22
repaired	7	1	15	15	38
chambers, gullies, traps, etc., provided or renewed	13	1	17	17	48
Yards and Areas: relaid	1	4	5	..	10
repaired	13	5	7	7	32
yard walls and back doors repaired	..	..	..	23	23
Privy Receptacles: newly provided	..	..	2	..	2
rebuilt or repaired	37	49	5	118	209
abolished	..	..	..	1	1
W.C.'s: newly provided (complete)	5	2	10	3	20
provided in place of privy receptacles	..	..	8	..	8
,, ,, "Fowler" closets	..	..	1	..	1
soil pipes provided	..	..	..	3	3
basins, cisterns, etc., replaced or repaired	2	7	4	18	31
Dustbins: provided	..	1	4	4	9
Urinals: reconstructed or repaired	..	3	..	3	6
Baths: waste-pipes or traps provided	2	..	..	3	5
Washups: of metal, replaced by stoneware	7	2	4	1	14
newly provided (complete)	1	1	..	4	6
traps, waste-pipes, etc,, provided or repaired	10	7	4	12	33
Lavatories: do.	2	1	..	..	3
Rain-water Cisterns, (underground):					
filled in	4	..	6	5	15
cleaned out	1	1	..	..	2
repaired	1	..	..	2	3
Wash-houses: provided or built	..	..	3	..	3
rebuilt or repaired	16	17	1	53	87
floors relaid or repaired	3	5	..	4	12
set pots provided	8	5	1	..	14
Out-buildings: rebuilt or repaired	23	51	8	57	139
Total	229	343	164	674	1410

TABLE 15.—SUMMARY OF METEOROLOGICAL OBSERVATIONS, 1920, taken at 9 a.m. daily at the Bents Park and Health Department, South Shields.

MONTH.	Barometer (corrected for elevation, temperature, etc.)	AIR TEMPERATURE.							HYGROMETER.			EARTH TEMPERATURE.		RAINFALL (in inches).				WIND.									
		Average.			Absolute.											Most in a day.		Average Daily Mileage.	Direction at 9 a.m.: Number of Days.								
		Maximum.	Minimum.	Mean.	Maximum.	Date.	Minimum.	Date.	Dry Bulb.	Wet Bulb.	Relative Humidity.	At 1 Foot Depth.	At 4 Feet Depth.	Total Fall.	No. of days rain fell .01" or more	Amount.	Date.		N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm.
January	29.694	45.2	34.8	40.0	55.7	17	28.3	6	40.0	38.9	90	36.9	39.1	2.63	21	0.72	10	345	..	1	1	1	4	10	10	4	..
February ..	29.981	49.2	34.4	41.5	58.2	18	29.2	5	40.9	39.2	87	38.4	40.0	1.03	14	0.38	19	324	4	1	..	..	2	8	9	5	..
March	29.793	50.7	37.1	44.1	60.9	23	27.5	8	44.5	42.2	83	41.7	41.8	2.54	18	0.47	26	309	3	..	..	2	4	5	9	7	1
April	29.634	49.3	39.3	44.7	59.8	15	33.4	8	45.4	43.1	84	45.1	44.7	2.86	23	0.47	10	282	5	2	4	5	5	3	..	6	..
May	29.921	57.9	44.0	51.5	68.0	23	34.5	1	52.9	49.3	77	49.8	48.0	2.97	13	0.88	29	276	3	1	..	3	6	3	11	4	..
June	30.013	60.7	48.4	55.2	70.0	22	38.2	7	56.5	53.8	82	55.7	53.2	0.60	5	0.32	27	230	4	14	1	1	1	4	3	2	..
July	29.804	61.7	51.1	56.7	70.3	20	46.2	6	57.2	54.8	85	56.8	55.3	3.30	23	0.39	16	208	3	2	2	3	5	8	4	4	..
August	30.027	60.8	50.5	56.0	69.5	16	42.0	19	56.7	53.9	83	57.0	56.0	2.09	8	0.81	4	187	8	6	3	..	..	3	7	4	..
September ..	29.971	60.5	47.9	54.4	67.4	12	40.0	23	54.8	53.8	93	54.4	55.0	1.25	13	0.25	18	159	2	2	1	4	3	6	7	5	..
October	29.994	54.9	45.1	50.0	67.2	7	35.5	31	50.1	48.6	90	51.2	53.0	1.81	6	0.97	4	217	..	1	5	10	8	2	2	1	2
November ..	29.990	49.6	41.6	45.5	59.2	14	27.0	23	45.0	43.2	86	45.1	48.2	0.97	9	0.24	27	248	..	..	2	2	3	10	9	3	1
December ..	29.933	44.9	36.3	40.6	53.4	26	30.0	23	40.8	39.3	87	40.0	44.0	2.98	20	0.68	29	282	1	2	4	5	3	6	7	2	1
AVERAGES ..	29.896	53.8	42.5	48.4	..	..	..	..	48.7	46.7	86	47.7	48.2	..	..	..	..	256	..	..	..	..	..	..	..	..	..
Totals	..	..	..	..	..	..	..	..	..	..	..	..	..	25.03	173	..	..	..	33	32	23	36	44	68	78	47	5